# Regional Water Quality Control Board CENTRAL VALLEY REGION (5)



SECTION 303 (d) LIST PROPOSALS

# Region 5 Summary of Recommendations

Water Body	Pollutant/Medium /Beneficial Use	RWQCB Recommendation	SWRCB Recommendation
Arcade Creek	Copper/Water/Aquatic Life	List	List the entire reach of Arcade Creek from it's headwaters to the Natomas East Main drainage Canal.
Avena Drain	Ammonia/Water/Aquatic Life	List	List for Ammonia, the drain begins on a dairy farm east of Brennan Ave. The upper 6.5 miles of Avena Drain has disassociated ammonia levels in exceedance of CDFG criterion, WQO for Toxicity is being exceeded.
Avena Drain	Pathogens/Water/Aquatic Life	List	List for Pathogens, the drain begins on a dairy farm east of Brennan Ave. The upper 6.5 miles of Avena Drain has E. coli. levels in exceedance of USEPA criterion.
Bear Creek	Mercury/Water/Aquatic Life	List	List for Mercury in Bear Creek from it's confluence with the unnamed creek that flows along Rathburn Mercury Mine to it's confluence with Cache Creek.
Lower Bear River	Diazinon/Water/Aquatic Life	List	List Lower Bear River, Diazinon was shown to be in exceedance of the objectives by using CDFG criteria to determine criterion exceedance.
Upper Bear River	Mercury/Water/Fish Consumption	List	List for Mercury in the Upper Bear River from the Rollins reservoir to Lake Combie. Data shows the WQO is not being attained.

Water Body	Pollutant/Medium /Beneficial Use	RWQCB Recommendation	SWRCB Recommendation
Black Butte Reservoir	Mercury/Water/Fish Consumption	List	List: List for Mercury in all of Black Butte Reservoir. All of the composite samples were at or above USEPA criterion, used to determine that the objective is not being attained.
Butte Slough	Diazinon/Water/Aquatic Life	List	List: List Butte Slough for Diazinon.
Butte Slough	Molinate/Water/Aquatic Life	List	List: List for Molinate in all of Butte Slough.
Lower Calaveras River	Low Dissolved Oxygen/Water/Aquatic Life	List	List: List for Low Dissolved Oxygen in the Lower Calaveras River between Stockton Diversion Channel and the San Joaquin River.
Lower Calaveras River	Pathogens/Water/REC-1	List	List: List for Pathogens. Both sampling locations are within the urban Stockton Area. The lower 5 miles of Lower Calaveras River are in exceedance of USEPA criterion, WQO is exceeded.
Camanche Reservoir	Aluminum/Water/Aquatic Life	List	List: List the entire Camanche reservoir for Aluminum.
Camp Far West Reservoir	Mercury/Water/Fish Consumption	List	List: List for Mercury for all of Camp Far West Reservoir (2,002 acres)
Clover Creek	Fecal Coliform/Water/REC1	List	List: List for Fecal Coliform Bacteria. The data have shown that using the WQO criteria there exist exceedances of the WQO for bacteria for REC1 List the lower 10.5 miles of Clover creek.
Colusa Basin Drain	Azinphos- methyl/Water/Aquatic Life	List	List: List for Azinphos-methyl. List the entire Colusa Basin drain.

Water Body	Pollutant/Medium /Beneficial Use	RWQCB Recommendation	SWRCB Recommendation
Colusa Basin Drain	Diazinon/Water/Aquatic Life.	List	List: List for Diazinon. List the entire Colusa Basin drain. The levels of Diazinon are in exceedance of the WQO.
Colusa Basin Drain	Molinate/Water/Aquatic Life	List	List: List for Molinate for the entire Colusa Basin Drain.
Del Puerto Creek	Chlorpyrifos/Water/Aquatic Life	List	List: List for Chlorpyrifos for the lower 5 miles between I-5 and the San Joaquin River. The data have shown exceedance of the WQO.
Del Puerto Creek	Diazinon/Water/Aquatic Life	List	List: List for Diazinon. List the lower 5 miles between I-5 and the San Joaquin River. The data have shown exceedance of the WQO.
Don Pedro Lake	Mercury/Water/Fish Consumption	List	List: List for Mercury in all reservoir of Don Pedro Lake.
Five Mile Slough	Low Dissolved Oxygen/Water/Aquatic Life	List	List: List for Dissolved Oxygen in Five Mile Slough from the Plymouth Rd. bridge to the confluence with Fourteen Mile Slough.
Five Mile Slough	Pathogens/Water/REC-1	List	List: List for pathogens. The bacteria data have shown exceedance for the USEPA criterion and the WQO has been exceeded. List the Five Mile Slough from the head of the slough at Alexandria Place to the confluence with Fourteen mile slough.

Water Body	Pollutant/Medium /Beneficial Use	RWQCB Recommendation	SWRCB Recommendation
Ingram/Hospital Creek	Chlorpyrifos/Water/Aquatic Life	List	List: List for Chlorpyrifos. The data have shown exceedance for the CDFG criterion and hence the WQO has been exceeded. List the Ingram/Hospital Creek from their confluence east of Diary Rd. to the San Joaquin River.
Ingram/Hospital Creek	Diazinon/Water/Aquatic Life	List	List: List for Diazinon. The data have shown exceedance for the CDFG criterion and the WQO has been exceeded. List the Ingram/Hospital Creek from their confluence east of Diary Rd. to the San Joaquin River.
Jack Slough	Diazinon/Water/Aquatic Life	List	List: List for Diazinon. The data have shown exceedance for the CDFG criterion and the WQO has been exceeded. List the Slough for 11 miles upstream of Highway 70 (sampling sites for USGS/RB), and 2 miles downstream from that point, prior to the confluence of Jack Slough and Feather River.
Lake Combie	Mercury/Water/Fish Consumption	List	List: List Lake Combie for Mercury.
Lake Englebright	Mercury/Water/Fish Consumption	List	List: List Lake Englebright for Mercury.
Little Deer Creek	Mercury/Water/Fish consumption	List	List: List all of Little Deer Creek for Mercury.
Lower Mokelume River	Aluminum/Water/Aquatic Life	List	List: List the lower Mokelumne River from the Camanche Dam to the Delta for Aluminum.

Water Body	Pollutant/Medium /Beneficial Use	RWQCB Recommendation	SWRCB Recommendation
Mormon Slough	Low Dissolved Oxygen/Water/Aquatic Life	List	List: List the Mormon Slough between, Commerce Street and the Stockton Deep Water Channel for Low Dissolved Oxygen. The data clearly shows that the WQO for Dissolved Oxygen are being exceeded.
Mormon Slough	Pathogens/Water/REC-1	List	List: List the Mormon Slough from the confluence with the Deep Water channel to the confluence with the Stockton Diverting Channel for pathogens. The bacterial data show the WQO is exceeded.
Mosher Slough	Low Dissolved Oxygen/Water/Aquatic Life	List	List: List for Dissolved Oxygen. List Mosher Slough from the 1-5 bridge to the confluence with Bear Creek. The WQO is being exceeded.
Mosher Slough	Pathogens/Water/REC-1	List	List: List for Pathogens. The bacterial data show the WQO is exceeded (REC-1). List the Mosher Slough from Mosher Creek to the confluence with the Bear Creek.
Newman Wasteway	Chlorpyrifos/Water/Aquatic Life	List	List: List for Chlorpyrifos. List the entire Wasteway. The data have shown exceedance of the WQO, using CDFG criteria.
Newman Wasteway	Diazinon/Water/Aquatic Life	List	List: List for Diazinon. List the entire Wasteway. The data have shown exceedance of the WQO, using CDFG criteria.

Water Body	Pollutant/Medium /Beneficial Use	RWQCB Recommendation	SWRCB Recommendation
Oak Run Creek	Fecal Coliform/Water/REC1	List	List: List for Fecal Coliform Bacteria. List the middle reach, 4.5 miles of Oak run creek. From 16.5 miles before the confluence to 12 miles from the confluence
Orestimba Creek	Azinphos- methyl/Water/Aquatic Life	List	List: List for Azinphos-methyl. List the lower ten miles from the foothills to the San Joaquin River. The WQO has been exceeded.
Orestimba Creek	DDE/Water/Fish Consumption and Drinking Water	List	List: List the lower ten miles from the foothills to the San Joaquin River for DDE. The WQO has been exceeded.
Lower Putah Creek	Mercury/Water/Fish Consumption	List	List: List the Lower Putah Creek from Lake Solano to Putah Creek for Mercury. The data show exceedance of the WQO using USEPA criteria for mercury.
Lower Putah Creek	Unknown Toxicity/Water/Aquatic Life	List	Watch List: Unknown toxicity. Available toxicity data suggest that Lower Putah Creek is impaired by toxins from unknown sources, from downstream of lake Berryesa to the Putah Creek sinks.
Upper Putah Creek	Unknown Toxicity/Water/Aquatic Life	List	Watch List: List for unknown toxicity. Available toxicity data suggest that Upper Putah Creek is impaired by toxins from unknown sources, for the lower 27 miles.
Rollins Reservoir	Mercury/Water/Fish Consumption	List	List: List all of Rollins Reservoir for Mercury. The data show exceedance of the WQO using USEPA criteria for mercury.

Water Body	Pollutant/Medium /Beneficial Use	RWQCB Recommendation	SWRCB Recommendation
Lower San Joaquin River	Mercury/Water/Fish Consumption	List	List: List Lower San Joaquin River for Mercury. The data show exceedance of the WQO using USEPA criteria for mercury.
Scotts Flat Reservoir	Mercury/Water/Fish Consumption	List	List: List all of Scotts Flat Reservoir for Mercury. The data show exceedance of the WQO using USEPA criteria for mercury.
Smith Canal	Low Dissolved Oxygen/Water/Aquatic Life	List	List: List Smith Canal from Yosemite lake to the confluence with the San Joaquin River for Dissolved Oxygen. The data have shown that the WQO for Dissolved Oxygen is not being attained.
Smith Canal	Organophosphorus Pesticides/Water/Aquatic Life	List	List: List the Smith Canal from the Yosemite Lake to the confluence with the San Joaquin River for OP pesticides. The data show exceedance of the WQO.
Smith Canal	Pathogens/Water/REC-1	List	List: List Smith Canal from Yosemite Lake to the confluence with the San Joaquin River for Pathogens. The data show an exceedance of the WQO.
South Cow Creek	Fecal Coliform/Water/REC1	List	List: List South Cow Creek 14 miles from the confluence to 7 miles before the confluence for Fecal Coliform. The data show an average that is clearly in exceedance of the WQO for bacteria-REC 1.
Lower Stanislaus River	Mercury/Water/Fish Consumption	List	List: List for Mercury. The data show an exceedance of the USEPA criteria, which shows an exceedance of the WQO.

Water Body	Pollutant/Medium /Beneficial Use	RWQCB Recommendation	SWRCB Recommendation
Stockton Deep Water Channel	Pathogens/Water/REC-1	List	List: List all of the Stockton Deep Water Channel for Pathogens. The WQO has been exceeded.
Sutter Bypass	Diazinon/Water/Aquatic Life	List	List: List the entire length of Sutter Bypass for Diazinon. The data show an exceedance of the WQO.
Walker Slough	Pathogens/Water/REC-1	List	List: List all of Walker Slough for Pathogens. The WQO has been exceeded, using the USEPA criterion.
Wolf Creek	Fecal Coliform/Water/REC1	List	List: List all of Wolf Creek for Fecal Coliform. The data show that there is an exceedance of the WQO for bacteria REC1
American River Lower	Group A Pesticides/Water/Aquatic Life	Delist	Delist: The new data show that the NAS and USFDA criteria are not being exceeded. Therefore the WQO for Group A pesticides for toxicity and pesticides are being attained and no longer need to be listed on the 303(d) List for Group A Pesticide, WQO exceedance. Remove the entire length of the lower American River, Nimbus Dam to the Sacramento River attains WQO for Group A pesticides.
Cache Creek	Mercury and Unknown Toxicity	Change in Total Size and Size Affected.	Change in Total Size and Size Affected.
Camanche Reservoir	Copper	Change in listing to include reservoir on list separate from the river.	Change in listing to include reservoir on list separate from the river.
Camanche Reservoir	Zinc	Change in listing to include reservoir on list separate from the river.	Change in listing to include reservoir on list separate from the river.

Water Body	Pollutant/Medium /Beneficial Use	RWQCB Recommendation	SWRCB Recommendation
Delta Waterways	Dissolved Oxygen	Change in Total Size and Size Affected.	Change in Total Size and Size Affected.
Delta Waterways	Chlorpyrifos, DDT, Diazinon, Group A pesticides, Mercury, and Unknown Toxicity.	Change in Total Size and Size Affected.	Change in Total Size and Size Affected.
Dunn Creek	Mercury and Metals.	Change in Total Size and Size Affected.	Change in Total Size and Size Affected.
Fall River	Sedimentation and Siltation	Change in size affected.	Change in size affected.
French Ravine	Bacteria	Change in Total Size and Size Affected.	Change in Total Size and Size Affected.
Horse Creek	All metals (Cadmium, Copper, Lead, Zinc)	Change in size affected.	Change in size affected.
Humbug Creek	Sedimentation and Siltation, Mercury, Copper, and Zinc.	Change in size affected.	Change in size affected.
James Creek	Nickel and Mercury	Change in Total Size and Size Affected.	Change in Total Size and Size Affected.
Lower Mokelumne River	Copper	Change in areal extent.	Change in areal extent.
Lower Mokelumne River	Zinc	Change in areal extent.	Change in areal extent.
Marsh Creek	Mercury	Change in Total Size and Size Affected.	Change in Total Size and Size Affected.
Marsh Creek	Metals	Change in Total Size and Size Affected.	Change in Total Size and Size Affected.
Mosher Slough	Diazinon and Chlorpyrifos	Change in Total size affected.	Change in Total size affected.
San Carlos Creek	Mercury	Change in Total Size and Size Affected.	Change in Total Size and Size Affected.

Water Body	Pollutant/Medium /Beneficial Use	RWQCB Recommendation	SWRCB Recommendation
Lower Stanislaus River	Diazinon, Group A Pesticides, Unknown toxicity	Change in Total Size and Size Affected.	Change in Total Size and Size Affected.
Lower Toulumne River	Diazinon	Change in Total Size and Size Affected.	Change in Total Size and Size Affected.
Lower Toulumne River	Group A Pesticides, Unknown Toxicity	Change in Total Size and Size Affected.	Change in Total Size and Size Affected.

### Arcade Creek

Arcade Creek Water Body Stressor/Media/Beneficial Use Copper/Water/Aquatic Life Generally limited consideration to those organizations that conduct Data quality assessment. Extent to monitoring using documented QA/QC procedures which data quality requirements met. Linkage between measurement endpoint Copper linked to Aquatic Life Beneficial Use. and benefical use or standard Utility of measure for judging if USEPA CTR Freshwater Aquatic Life Criteria for Dissolved standards or uses are not attained Copper, WQO. Water Body-specific Information Data = 4 years (2/96-5/00), Data measured at the site, Species or Indicator present at site, Environmental Conditions considered at Data used to assess water quality Copper Concentration Data = 40 samples, 8 exceeded the CCC and 3 exceeded the CMC. They used the USEPA CTR criteria for dissolved copper. The USGS and the SWRP combined collected 40 samples from **Spatial representation** Arcade Creek **Temporal representation** Data collected by USGS and SWRP from 2/1996 to 5/2000 Numerical data Data type Use of standard method USGS and City of Sacramento methods Potential Source(s) of Pollutant Urban Runoff/Storm Sewers Alternative Enforceable Program **RWQCB Recommendation** List **SWRCB Staff Recommendation** List the entire reach of Arcade Creek from it's headwaters to the

Natomas East Main drainage Canal.

### Avena Drain

Water Body	Avena Drain

Stressor/Media/Beneficial Use Ammonia/Water/Aquatic Life

**Data quality assessment. Extent to Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.** 

Linkage between measurement endpoint Ammonia linked to Aquatic Life. and benefical use or standard

Utility of measure for judging if CDFG criteria for ammonia levels, WQO. standards or uses are not attained

Water Body-specific Information

Data =10 years (1991- 2001), Data measured at the site, Species or Indicator present at site, Environmental Conditions considered at

site.

Data used to assess water quality

Ammonia Data = Over a period of 10 years, all of the samples contained undissociated ammonia levels above CDFG criterion, and all of the samples exceed some to most of the LC50s for various freshwater species.

**Spatial representation**The Avena Drain, at Van Allen Rd. and Brennan Ave. 10 of the 12
Dairies located along the drain are located on the upper 6.5 miles.

**Temporal representation** Data collected over a period of 10 years, during known discharges

of wastewater.

**Data type** Numerical data

Use of standard method CDFG methods

Potential Source(s) of Pollutant Agriculture/Dairies (manure carried in wastewater to Avena Drain).

Alternative Enforceable Program

**RWQCB Recommendation** List

SWRCB Staff Recommendation List for Ammonia, the drain begins on a dairy farm east of Brennan

Ave. The upper 6.5 miles of Avena Drain has disassociated ammonia levels in exceedance of CDFG criterion, WQO for

Toxicity is being exceeded.

### Avena Drain

Water Body Avena Drain

Stressor/Media/Beneficial Use Pathogens/Water/Aquatic Life

Data quality assessment. Extent to which data quality requirements met.

Generally limited consideration to those organizations that conduct

monitoring using documented QA/QC procedures.

Linkage between measurement endpoint

and benefical use or standard

Pathogens linked to Aquatic Life.

Utility of measure for judging if standards or uses are not attained

WQO for toxicity, USEPA Criterion

Water Body-specific Information Data = 4 months (10/2000-1/2001), Data measured at the site,

Species or Indicator present at site, Environmental Conditions

considered at site.

**Data used to assess water quality** E.coli Data = 14 samples collected from six locations, three

locations have Geometric Means, and they all exceeded USEPA criterion for E. coli. 13 of the 14 samples collected exceed the

USEPA single sample criterion for

E. coli levels.

**Spatial representation** Data collected from six locations on Avena Drain.

**Temporal representation** Data collected on 5 dates between 10/2000 and 1/2001.

Data type Numerical data

Use of standard method Delta Keeper Bacteria Data

Potential Source(s) of Pollutant Agriculture/Dairies (manure carried in wastewater to Avena Drain).

**Alternative Enforceable Program** 

**RWQCB Recommendation** List

**SWRCB Staff Recommendation** List for Pathogens, the drain begins on a dairy farm east of Brennan

Ave. The upper 6.5 miles of Avena Drain has E. coli. levels in exceedance of USEPA criterion.

### Bear Creek

Bear Creek Water Body Stressor/Media/Beneficial Use Mercury/Water/Aquatic Life Generally limited consideration to those organizations that conduct Data quality assessment. Extent to which data quality requirements met. monitoring using documented QA/QC procedures. Linkage between measurement endpoint Mercury linked to Aquatic Life. and benefical use or standard Utility of measure for judging if USEPA CTR for Mercury, WQO. standards or uses are not attained Water Body-specific Information Data = 13 days over two years (4/96 to 2/98), Data measured at the site, Species or Indicator present at site, Environmental Conditions considered at site. Water quality data = 19 samples total, 13 samples out of the 19 had Data used to assess water quality concentrations of mercury above USEPA criterion (50 ng/L). **Spatial representation** Four Separate locations were sampled along the creek. Temporal representation Data collected on thirteen days between April 1996 and February 1998. Numerical data Data type Use of standard method Extraction/Abandoned Mines Potential Source(s) of Pollutant Alternative Enforceable Program List **RWQCB Recommendation SWRCB Staff Recommendation** List for Mercury in Bear Creek from it's confluence with the unnamed creek that flows along Rathburn Mercury Mine to it's

confluence with Cache Creek.

### Lower Bear River

Water Body Lower Bear River

Stressor/Media/Beneficial Use Diazinon/Water/Aquatic Life

Data quality assessment. Extent to Generally limited consideration to those organizations that conduct

which data quality requirements met. monitoring using documented QA/QC procedures.

**Linkage between measurement endpoint**Diazinon linked to Aquatic Life.

and benefical use or standard

Utility of measure for judging if CDFG criteria for Diazinon levels(acute and chronic), WQO. standards or uses are not attained

Water Body-specific Information Data = 2 years (94 and 2000), Data measured at the site, Species or

Indicator present at site, Environmental Conditions considered at

site

**Data used to assess water quality**Diazinon Data = 14 samples total, 3 samples exceeded the CDFG

criteria

**Spatial representation** The Data was collected from Berry Road along the River.

**Temporal representation** Data was collected over 14 days, 14 times during two years (94 and

2000)

Data type Numerical data

Use of standard method CDFG methods

Potential Source(s) of Pollutant Agriculture (Diazinon Spray used on dormant almond and

stonefruit crops)

Alternative Enforceable Program

**RWQCB Recommendation** List

**SWRCB Staff Recommendation** List Lower Bear River, Diazinon was shown to be in exceedance of

the objectives by using CDFG criteria to determine criterion

exceedance.

### Upper Bear River

Upper Bear River Water Body

Stressor/Media/Beneficial Use Mercury/Water/Fish Consumption

Generally limited consideration to those organizations that conduct Data quality assessment. Extent to

which data quality requirements met. monitoring using documented QA/QC procedures.

Linkage between measurement endpoint Mercury linked to Fish Consumption BU. and benefical use or standard

USEPA criteria for Mercury, Human Consumption Levels Utility of measure for judging if standards or uses are not attained

Water Body-specific Information Data = 3 fish in 1 day, Data measured at the site, Species or

Indicator present at site, Environmental conditions considered at site.

Mercury Data. Three fish were collected from the River by USGS, Data used to assess water quality tissue had concentrations of 0.38 to 0.43 ppm, all of them exceeding the USEPA mercury criteria of 0.3 ppm. This criteria is used to

determine attainment of the narrative toxicity objective.

**Spatial representation** All the trophic level 3 fish were collected in the river at Dog Bar

All the fish were collected on Sept. 23, 1999 **Temporal representation** 

Numerical data Data type

Use of standard method USGS methods

Potential Source(s) of Pollutant Resource Extraction (abandoned mines)

Alternative Enforceable Program

**RWQCB Recommendation** List

**SWRCB Staff Recommendation** List for Mercury in the Upper Bear River from the Rollins reservoir

to Lake Combie. Data shows the WQO is not being attained.

### Black Butte Reservoir

Water Body Black Butte Reservoir

Stressor/Media/Beneficial Use Mercury/Water/Fish Consumption

Data quality assessment. Extent to Generally limited consideration to those organizations that conduct

which data quality requirements met. monitoring using documented QA/QC procedures.

Linkage between measurement endpoint

and benefical use or standard

Mercury linked to Fish consumption.

Utility of measure for judging if USEPA criteria for Mercury, Human Consumption Levels standards or uses are not attained

Water Body-specific Information Data = 3 days over 1 year, Data measured at the site, Species or

Indicator present at site, Environmental conditions considered at site.

Data used to assess water quality

Data = There were 65 fish sampled total. 38 composite samples of trophic level 3 fish, 27 composite samples of trophic level 4 fish,

ALL of the samples were at or above USEPA mercury criteria, this criteria is used to determine attainment of the narrative toxicity

objective.

**Spatial representation** Fish collected from three regions of the reservoir, Burris Creek arm,

Stony Creek Arm and Angler's cove.

**Temporal representation** The samples of 65 fish were collected on 11/25/97, and 12/4-5/97

Data type Numerical data

**Use of standard method** OEHHA methods

Potential Source(s) of Pollutant Resource Extraction (abandoned mines)

**Alternative Enforceable Program** 

**RWQCB Recommendation** List

SWRCB Staff Recommendation List: List for Mercury in all of Black Butte Reservoir. All of the

composite samples were at or above USEPA criterion, used to

determine that the objective is not being attained.

## **Butte Slough**

Water Body Butte Slough

Stressor/Media/Beneficial Use Diazinon/Water/Aquatic Life

**Data quality assessment. Extent to Solution**Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.

**Linkage between measurement endpoint**Diazinon linked to Aquatic Life.

and benefical use or standard

Utility of measure for judging if CDFG criteria for Diazinon levels (acute and chronic), WQO. standards or uses are not attained

Water Body-specific Information

Data = 2 years (94 and 2000), Data measured at the site, Species or

Indicator present at site, Environmental Conditions considered at site.

**Data used to assess water quality**Diazinon Data = 38 samples total, 20 samples exceeded the chronic

CDFG criteria and 18 samples exceeded the acute CDFG criteria.

**Spatial representation** Samples were collected at one site only, Lower pass road.

**Temporal representation** Samples were collected during two years, 1994 and 2000 during

January and February

**Data type** Numerical data

Use of standard method Regional board and USGS study methods

Potential Source(s) of Pollutant Agriculture (Diazinon Spray used on dormant almond and

stonefruit crops)

**Alternative Enforceable Program** 

**RWQCB Recommendation** List

**SWRCB Staff Recommendation** List: List Butte Slough for Diazinon.

### **Butte Slough**

Water Body Butte Slough

Stressor/Media/Beneficial Use Molinate/Water/Aquatic Life

**Data quality assessment. Extent to Solution**Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.

Linkage between measurement endpoint and benefical use or standard

Molinate linked to Aquatic Life.

Utility of measure for judging if CDFG criteria for Molinate levels, WQO. standards or uses are not attained

Water Body-specific Information

Data = 6 years (1994-2000), Data measured at the site, Species or indicator present at site, Environmental conditions considered at the

site.

**Data used to assess water quality**Molinate Data = 99 samples were collected and over six years 7

samples exceeded the CDFG criterion for Molinate there is a low confidence of 5 % exceedance of the objective. The CDFG criteria was used to determine that the narrative objectives for pesticide and

toxicity are not being attained.

Spatial representation Samples were collected at one site only, Lower pass road.

**Temporal representation** 99 samples were collected during 1994 to 2000 during May and June

Data type Numerical data

Use of standard method CDPR and Regional Board study method

Potential Source(s) of Pollutant Agriculture (Molinate Aerial Spray used on rice fields)

**Alternative Enforceable Program** 

**RWQCB Recommendation** List

**SWRCB Staff Recommendation** List: List for Molinate in all of Butte Slough.

### Lower Calaveras River

Water Rody	Lower Calaveras River
Water Book	

Stressor/Media/Beneficial Use Low Dissolved Oxygen/Water/Aquatic Life

**Data quality assessment. Extent to Solution**Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.

Linkage between measurement endpoint Low Dissolved Oxygen linked to Aquatic Life. and benefical use or standard

Utility of measure for judging if Basin Plan WQO for Dissolved Oxygen standards or uses are not attained

Water Body-specific Information

Data = 2 Years (1996 and 1999-2000), Data measured at the site,
Species or Indicator present at site, Environmental Conditions

considered at site.

Data used to assess water quality Dissolved Oxygen Data = 44 samples were collected, and of those

samples 18 were below the Objective (5.0 mg/L), showing that the

WQO is not being attained.

Spatial representation Samples were collected at one site in the middle of the Stockton

Urban area.

**Temporal representation** 44 samples were collected over a 2 year period. Samples were taken

Oct./Nov. 1996 and from Nov. 99 -Feb. 2000

Data type Numerical data

Use of standard method Delta Keeper Data

Potential Source(s) of Pollutant Urban Runoff/Storm Sewers

**Alternative Enforceable Program** 

**RWQCB Recommendation** List

**SWRCB Staff Recommendation** List: List for Low Dissolved Oxygen in the Lower Calaveras River

between Stockton Diversion Channel and the San Joaquin River.

### Lower Calaveras River

Lower Calaveras River Water Body

Stressor/Media/Beneficial Use Pathogens/Water/REC-1

Generally limited consideration to those organizations that conduct Data quality assessment. Extent to which data quality requirements met.

monitoring using documented QA/QC procedures.

Linkage between measurement endpoint Pathogens linked to REC-1 Beneficial uses. and benefical use or standard

WQO, USEPA Criterion Utility of measure for judging if standards or uses are not attained

Water Body-specific Information Data = 2 years (2000-2001), Data measured at the site, Species or Indicator present at site, Environmental Conditions considered at

site.

E. coli Data = 37 samples collected from two locations, 26 samples Data used to assess water quality

> from an upstream location have a Geometric Mean, and they all exceeded USEPA criterion for E. coli. The 11 samples collected from the downstream location have a Geometric that doesn't exceed the USEPA criterion for E.coli. However all of the Downstream samples individually exceed the USEPA 'single' sample criterion for E. coli levels. The USEPA criteria is used to translate the narrative

WOO, and it has been shown that it's been exceeded.

Two sampling locations exist. One Sampling location is near the **Spatial representation** 

mouth of the river and the other is 4 miles upstream.

**Temporal representation** The upstream location samples were collected over 10 months, 2000-

2001. The downstream location was sampled over 7 months in 2000.

Data type Numerical data

Use of standard method Delta Keeper Data

Potential Source(s) of Pollutant Urban Runoff/Recreation

Alternative Enforceable Program

**RWQCB Recommendation** List

**SWRCB Staff Recommendation** List: List for Pathogens. Both sampling locations are within the

urban Stockton Area. The lower 5 miles of Lower Calaveras River

are in exceedance of USEPA criterion, WQO is exceeded.

### Camanche Reservoir

Camanche Reservoir Water Body

Stressor/Media/Beneficial Use Aluminum/Water/Aquatic Life

Generally limited consideration to those organizations that conduct Data quality assessment. Extent to

monitoring using documented QA/QC procedures. which data quality requirements met.

Linkage between measurement endpoint and benefical use or standard

Aluminum linked to Aquatic Life uses.

Utility of measure for judging if WQO, USEPA NWRAQ criteria for aluminum. standards or uses are not attained

Water Body-specific Information Data = 7 Years, Data measured at the site, Species or Indicator present at site, Environmental Conditions considered at site.

Data = There were 260 samples taken over seven years. Of those Data used to assess water quality

samples 18 exceeded the NWRAQ criterion. There exists a low confidence in 7% of the samples exceeding the objective. The NWRAQ was used to determine the narrative objective for toxicity. 1995 data had unusually high TSS values based on the EBMUD

data set

**Spatial representation** Data collected from 8 locations on Camanche Reservoir.

Data were collected over 7 years (1993-2000). Temporal representation

Numerical data Data type

Use of standard method EBMUD methods for sampling

Potential Source(s) of Pollutant Resource Extraction (abandoned mines)

Alternative Enforceable Program

**RWQCB Recommendation** List

**SWRCB Staff Recommendation** List: List the entire Camanche reservoir for Aluminum.

### Camp Far West Reservoir

Water Body Camp Far West Reservoir

Stressor/Media/Beneficial Use Mercury/Water/Fish Consumption

Data quality assessment. Extent to Generally limited consideration to those organizations that conduct

which data quality requirements met. monitoring using documented QA/QC procedures.

Linkage between measurement endpoint Mercury linked to fish consumption. and benefical use or standard

Utility of measure for judging if Basin Plan WQO, USEPA criterion for human health consumption

standards or uses are not attained levels of mercury

Water Body-specific Information Data = 12 years (1987 to 1999), Data measured at the site, Species

or Indicator present at site, Environmental Conditions considered at

site

Data used to assess water quality

Data = 36 sampled fish from Trophic level 4. The fish had an

average level of mercury of 0.69 ppm, more than double the concentration level criteria of the USEPA which is 0.3 ppm. OEHHA is in the process of developing a state advisory for Placer,

Yuba and Nevada Counties, based on this USGS data.

**Spatial representation** Sampled 4 targeted areas of the Reservoir.

**Temporal representation** Samples were collected during twelve years, 1987 to 1999

**Data type** Numerical data

Use of standard method USGS and TSMP sampling methods

Potential Source(s) of Pollutant Resource Extraction (abandoned mines)

Alternative Enforceable Program

**RWQCB Recommendation** List

SWRCB Staff Recommendation List: List for Mercury for all of Camp Far West Reservoir (2,002

acres)

### Clover Creek

Water Rody	Clover Creek

Stressor/Media/Beneficial Use Fecal Coliform/Water/REC1

**Data quality assessment.** Extent to

Which data quality requirements met.

Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.

**Linkage between measurement endpoint**Fecal coliform linked to (REC -1)WQO for Bacteria.

and benefical use or standard

Utility of measure for judging if WQO for bacteria, REC 1 objective. standards or uses are not attained

Water Body-specific Information Data = 5 months (June - October 1999), Data measured at the site,

Species or Indicator present at site, Environmental Conditions

considered at site.

**Data used to assess water quality**Data was collected and the average levels were above 300

MPN/100ml, exceeding the WQO Geometric Mean levels of 200 MPN/100ml for at least 5 months. The WQO has been exceeded. Many of the samples were above the 30 day basin plan criteria of

400 MPN/100ml.

Spatial representation Data were collected from the lower reach of Clover Creek (10.5

miles)

**Temporal representation** 5 Months from 6/99- 10/99

**Data type** Numerical data

**Use of standard method**Hannaford and North State Institute for Sustainable Communities,

sampling methods.

Potential Source(s) of Pollutant Human and/or Livestock Sources

Alternative Enforceable Program

**RWQCB Recommendation** List

**SWRCB Staff Recommendation** List: List for Fecal Coliform Bacteria. The data have shown that

using the WQO criteria there exist exceedances of the WQO for bacteria for REC1 List the lower 10.5 miles of Clover creek.

### Colusa Basin Drain

Water Body	Colusa Basin Drain

Stressor/Media/Beneficial Use Azinphos-methyl/Water/Aquatic Life

**Data quality assessment. Extent to**Generally limited consideration to those organizations that conduct which data quality requirements met.

Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.

Linkage between measurement endpoint Azinp and benefical use or standard

Azinphos-methyl linked to Aquatic Life.

Utility of measure for judging if WQO, standards or uses are not attained

WQO, USEPA criteria for azinphos-methyl.

Water Body-specific Information Data = 3 years (1996-1998), Data measured at the site, Species or

Indicator present at site, Environmental conditions considered at site.

Data used to assess water quality

Data = 21 samples were analyzed, out of those 6 (28%) of the

samples were equal or above the USEPA criteria used to determine

the narrative objectives attainment.

Spatial representation Data were collected at Road 99E, along the Colusa Basin Drain.

**Temporal representation** Data were collected over 3 years (1996-1998), at least once a month.

Data type Numerical data

Use of standard method CDPR method

Potential Source(s) of Pollutant Agriculture (Used to control insects on almonds, walnuts and other

crops).

Alternative Enforceable Program

**RWQCB Recommendation** List

**SWRCB Staff Recommendation** List: List for Azinphos-methyl. List the entire Colusa Basin drain.

### Colusa Basin Drain

Water Body Colusa Basin Drain

Stressor/Media/Beneficial Use Diazinon/Water/Aquatic Life.

Data quality assessment. Extent to which data quality requirements met.

Generally limited consideration to those organizations that conduct

monitoring using documented QA/QC procedures.

Linkage between measurement endpoint

and benefical use or standard

Diazinon linked to Aquatic Life.

Utility of measure for judging if standards or uses are not attained

WQO, CDFG criteria for Diazinon.

Water Body-specific Information Data = 6 years (1994-2000), Data measured at the site, Species or

indicator present at site, Environmental conditions considered at the

site.

Data used to assess water quality Data = 56 samples were analyzed for Diazinon, out of those 14

(25%) exceeded the chronic CDFG criterion, and 10 (18%) samples exceeded the CDFG Acute Criterion for Diazinon. The CDFG criterion was used to determine whether the WQO was being

attained.

Spatial representation Data were collected at Road 99E, along the Colusa Basin Drain.

**Temporal representation** Data were collected for 6 years from 1994-2000.

Data type Numerical data

Use of standard method CDFG methods

Potential Source(s) of Pollutant Agriculture

**Alternative Enforceable Program** 

**RWQCB Recommendation** List

**SWRCB Staff Recommendation** List: List for Diazinon. List the entire Colusa Basin drain. The levels

of Diazinon are in exceedance of the WQO.

### Colusa Basin Drain

Colusa Basin Drain Water Body

Molinate/Water/Aquatic Life Stressor/Media/Beneficial Use

Data quality assessment. Extent to which data quality requirements met. Generally limited consideration to those organizations that conduct

monitoring using documented QA/QC procedures.

Linkage between measurement endpoint

and benefical use or standard

Molinate linked to Aquatic Life.

Utility of measure for judging if

standards or uses are not attained

CDFG criteria for Molinate levels, WQO.

Water Body-specific Information Data = 6 years (1994-2000), Data measured at the site, Species or

indicator present at site, Environmental conditions considered at the

site.

Data = 133 samples, of those 42 (32%) samples were equal or above Data used to assess water quality

the CDFG criterion used to determine if the WQO was being

exceeded.

Data were collected in the Colusa Basin Drain. **Spatial representation** 

**Temporal representation** Data were collected over 6 years (1994-2000).

Numerical data Data type

CDPR methods Use of standard method

Potential Source(s) of Pollutant Agriculture (Molinate Aerial Spray used on rice fields)

Alternative Enforceable Program

**RWQCB Recommendation** List

**SWRCB Staff Recommendation** List: List for Molinate for the entire Colusa Basin Drain.

### Del Puerto Creek

Water Body Del Puerto Creek

Stressor/Media/Beneficial Use Chlorpyrifos/Water/Aquatic Life

**Data quality assessment. Extent to**Generally limited consideration to those organizations that conduct which data quality requirements met.

Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.

Linkage between measurement endpoint Chlorpyrifos linked to Aquatic life. and benefical use or standard

Utility of measure for judging if CDFG criterion Chlorpyrifos levels, WQO standards or uses are not attained

Water Body-specific Information

Data = 3 Years (1991-1993), Data measured at the site, Species or Indicator present at site, Environmental conditions considered at site.

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Data used to assess water quality

Data = 30 Samples, of those 10 samples (33%) exceeded the chronic criterion, and 10 of those samples (33%) exceeded the acute

criterion of CDFG. These criterion were used to show exceedance of

the WQO.

Spatial representation Data were collected for the lower section (5 miles) of the creek.

**Temporal representation** Data were collected for 3 years from 1991-1993.

**Data type** Numerical data

Use of standard method CDPR methods

**Potential Source(s) of Pollutant** Agriculture (application on orchards and field crops)

Alternative Enforceable Program

**RWQCB Recommendation** List

**SWRCB Staff Recommendation** List: List for Chlorpyrifos for the lower 5 miles between I-5 and the

San Joaquin River. The data have shown exceedance of the WQO.

### Del Puerto Creek

Water Body Del Puerto Creek

Stressor/Media/Beneficial Use Diazinon/Water/Aquatic Life

Data quality assessment. Extent to Ger which data quality requirements met. more

Generally limited consideration to those organizations that conduct

monitoring using documented QA/QC procedures.

Linkage between measurement endpoint

and benefical use or standard

Diazinon linked to Aquatic Life.

Utility of measure for judging if standards or uses are not attained

Narrative WQO for Toxicity and pesticides, CDFG criterion for Diazinon.

Water Body-specific Information Data

Data = 3 Years (1991-1993), Data measured at the site, Species or Indicator present at site, Environmental conditions considered at site.

Data used to assess water quality

Data = 30 Samples, of those 10 samples (33%) exceeded the chronic criteria, and 9 of those samples (30%) exceeded the acute criteria of the CDFG. These criteria were used to show exceedance of the

WQO.

Spatial representation Data were collected for the lower section (5 miles) of the creek.

**Temporal representation** Data were collected for 3 years from 1991-1993.

Data type Numerical data

Use of standard method CDPR methods

Potential Source(s) of Pollutant Agriculture

Alternative Enforceable Program

**RWQCB Recommendation** List

SWRCB Staff Recommendation List: List for Diazinon. List the lower 5 miles between I-5 and the

San Joaquin River. The data have shown exceedance of the WQO.

### Don Pedro Lake

Water Body Don Pedro Lake

Stressor/Media/Beneficial Use Mercury/Water/Fish Consumption

Data quality assessment. Extent to Generally limited consideration to those organizations that conduct

which data quality requirements met.

monitoring using documented QA/QC procedures.

monitoring using documented QA/QC procedures.

**Linkage between measurement endpoint**Mercury linked to Fish Consumption.
and benefical use or standard

Utility of measure for judging if Basin Plan WQO, USEPA criterion for human health consumption

standards or uses are not attained levels of mercury.

Water Body-specific Information Data = 6 Years (1981-1987), Data measured at the site, Species or

Indicator present at site, Environmental conditions considered at site.

Data used to assess water quality

Data = 32 Trophic Level 4 fish, the fish sampled had an average

0.54ppm concentration of mercury, clearly exceeding the USEPA criteria of 0.3 ppm. The USEPA criterion was used to determine that

the narrative WQO was being exceeded.

Spatial representation Data were collected from the northern most arms of Don Pedro

Lake, (12,960 acres).

**Temporal representation** Data were collected from 1981-1987 (6 years).

Data type Numerical data

Use of standard method TSMP methods

Potential Source(s) of Pollutant Resource Extraction (abandoned mines)

**Alternative Enforceable Program** 

**RWQCB Recommendation** List

**SWRCB Staff Recommendation** List: List for Mercury in all reservoir of Don Pedro Lake.

## Five Mile Slough

Water Body Five Mile Slough

Stressor/Media/Beneficial Use Low Dissolved Oxygen/Water/Aquatic Life

**Data quality assessment. Extent to**Generally limited consideration to those organizations that conduct which data quality requirements met.

Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.

Linkage between measurement endpoint Dissolved Oxygen linked to Aquatic Life. and benefical use or standard

Utility of measure for judging if
Standards or uses are not attained
Basin Plan WQO for Dissolved Oxygen

Water Body-specific Information

Data = 2 Years (1999-2000 and 1996), Data measured at the site,
Species or Indicator present at site, Environmental conditions

considered at site.

Data used to assess water quality

Data = 41 samples of Dissolved Oxygen values, with 24 of those

samples falling below the WQO of 5 mg/L.

**Spatial representation** Data were collected in the Five Mile slough

**Temporal representation** The Data were collected over 2 years, from 11/99-2/00 and also

from 10/96-11/96.

Data type Numerical data

Use of standard method DeltaKeeper methods

Potential Source(s) of Pollutant Urban Runoff/Storm Sewers

Alternative Enforceable Program

**RWQCB Recommendation** List

SWRCB Staff Recommendation List: List for Dissolved Oxygen in Five Mile Slough from the

Plymouth Rd. bridge to the confluence with Fourteen Mile Slough.

## Five Mile Slough

Water Body Five Mile Slough

Stressor/Media/Beneficial Use Pathogens/Water/REC-1

**Data quality assessment. Extent to**Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.

Linkage between measurement endpoint Pathogens linked to REC-1 Beneficial uses. and benefical use or standard

Utility of measure for judging if Basin Plan WQO standards or uses are not attained

Water Body-specific Information Data = 10 Months (2000-2001), Data measured at the site, Species

or Indicator present at site, Environmental conditions considered at

site.

Data used to assess water quality

Data = 29 samples were collected and the average levels were above

the USEPA criteria, exceeding the WQO. Some of the Geometric Mean levels also exceeded the single day USEPA criterion.

Spatial representation Data were collected at two locations, one upstream and one

downstream. A total of 29 samples were collected.

**Temporal representation** The samples were collected during 10 months, 2000-2001. The

upstream location was sampled once each month in April, August

2000 and February 2001

Data type Numerical data

Use of standard method DeltaKeeper methods

Potential Source(s) of Pollutant Urban Runoff/Recreation

Alternative Enforceable Program

**RWQCB Recommendation** List

SWRCB Staff Recommendation List: List for pathogens. The bacteria data have shown exceedance

for the USEPA criterion and the WQO has been exceeded. List the Five Mile Slough from the head of the slough at Alexandria Place to

the confluence with Fourteen mile slough.

### Ingram/Hospital Creek

Water Body Ingram/Hospital Creek

Stressor/Media/Beneficial Use Chlorpyrifos/Water/Aquatic Life

Data quality assessment. Extent to Generally lin which data quality requirements met. monitoring uses

Generally limited consideration to those organizations that conduct

monitoring using documented QA/QC procedures.

Linkage between measurement endpoint

and benefical use or standard

Chlorpyrifos linked to Aquatic Life.

Utility of measure for judging if standards or uses are not attained

CDFG criteria Chlorpyrifos levels, WQO.

Water Body-specific Information Data = 3 years (1991-93), Data measured at the site, Species or

Indicator present at site, Environmental conditions considered at site.

**Data used to assess water quality** Data = 26 samples, out of those 7 samples exceeded the chronic

criteria and 7 samples exceeded the acute criterion, 14 total of 26 (54%). The criteria used are the CDFG criterion used to determine if

the WQO has been exceeded.

Spatial representation The samples were collected from the Ingram/Hospital Creek.

**Temporal representation** The samples were collected from December to June, for three years.

Data type Numerical data

Use of standard method CDFG methods

Potential Source(s) of Pollutant Agriculture

**Alternative Enforceable Program** 

**RWQCB Recommendation** List

**SWRCB Staff Recommendation** List: List for Chlorpyrifos. The data have shown exceedance for the

CDFG criterion and hence the WQO has been exceeded. List the Ingram/Hospital Creek from their confluence east of Diary Rd. to

the San Joaquin River.

### Ingram/Hospital Creek

Water Body Ingram/Hospital Creek

Stressor/Media/Beneficial Use Diazinon/Water/Aquatic Life

Data quality assessment. Extent to which data quality requirements met.

Generally limited consideration to those organizations that conduct

monitoring using documented QA/QC procedures.

Linkage between measurement endpoint

and benefical use or standard

Diazinon linked to Aquatic Life.

Utility of measure for judging if standards or uses are not attained

WQO, CDFG criteria for Diazinon

Water Body-specific Information Data = 3 years (1991-93), Data measured at the site, Species or

Indicator present at site, Environmental conditions considered at site.

Data used to assess water quality Data = 32 samples, out of those 16 samples exceeded the chronic

criterion and 11 samples exceeded the acute criteria, 27 total of 32 (84%). The criterion used are the CDFG criterion used to determine

if the WQO has been exceeded.

Spatial representation The samples were collected from the Ingram/Hospital Creek.

**Temporal representation** The samples were collected over 3 years, with 32 samples total.

Data type Numerical data

Use of standard method CDFG methods

Potential Source(s) of Pollutant Agriculture

**Alternative Enforceable Program** 

**RWQCB Recommendation** List

**SWRCB Staff Recommendation** List: List for Diazinon. The data have shown exceedance for the

CDFG criterion and the WQO has been exceeded. List the Ingram/Hospital Creek from their confluence east of Diary Rd. to

the San Joaquin River.

## Jack Slough

Water Rody	Jack Slough

Stressor/Media/Beneficial Use Diazinon/Water/Aquatic Life

**Data quality assessment. Extent to Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.** 

Linkage between measurement endpoint Diazinon linked to Aquatic Life. and benefical use or standard

Utility of measure for judging if WQO, CDFG criteria for Diazinon. standards or uses are not attained

Water Body-specific Information

Data = 2 years (1994 and 2000), Data measured at the site, Species or Indicator present at site, Environmental conditions considered at

site.

**Data used to assess water quality**Data = 19 samples, out of those 19 samples exceeded the chronic

criterion and the acute criterion,19 total of 19 (100%). The criterion used are the CDFG criterion used to determine if the WQO has been exceeded. Some of the samples were 16 times the chronic

levels of CDFG water quality criterion.

**Spatial representation** The samples were collected from slough during rain events.

**Temporal representation** The samples were collected over 2 years (94 and 2000), during

January and February.

Data type Numerical data

**Use of standard method**Regional board and USGS study methods

Potential Source(s) of Pollutant Agriculture (application on orchards and field crops)

Alternative Enforceable Program

**RWQCB Recommendation** List

**SWRCB Staff Recommendation** List: List for Diazinon. The data have shown exceedance for the

CDFG criterion and the WQO has been exceeded. List the Slough for 11 miles upstream of Highway 70 (sampling sites for

USGS/RB), and 2 miles downstream from that point, prior to the

confluence of Jack Slough and Feather River.

#### Lake Combie

Water Body Lake Combie

Stressor/Media/Beneficial Use Mercury/Water/Fish Consumption

**Data quality assessment. Extent to Generally limited consideration to those organizations that conduct which data quality requirements met.**Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.

**Linkage between measurement endpoint**Mercury linked to Fish Consumption.
and benefical use or standard

Utility of measure for judging if Basin Plan WQO, USEPA criterion for human health consumption

standards or uses are not attained levels of mercury

Water Body-specific Information Data = 1 Year (1999), Data measured at the site, Species or

Indicator present at site, Environmental conditions considered at site.

Data used to assess water quality

USGS Data = 9 trophic level 4 fish. They had an average mercury

concentration of  $0.91 \mathrm{ppm}$ , exceeding the  $0.3 \mathrm{~ppm}$  USEPA criteria. OEHHA is in the process of developing a state advisory for Nevada

County based on this data.

**Spatial representation** Data was collected from Lake Combie (360 acres).

**Temporal representation** The data was collected during one year, 1999.

Data type Numerical data

Use of standard method USGS methods

Potential Source(s) of Pollutant Unknown

Alternative Enforceable Program

**RWQCB Recommendation** List

**SWRCB Staff Recommendation** List: List Lake Combie for Mercury.

## Lake Englebright

Water Body Lake Englebright

Stressor/Media/Beneficial Use Mercury/Water/Fish Consumption

Data quality assessment. Extent to Generally limited consideration to those organizations that conduct

which data quality requirements met. monitoring using documented QA/QC procedures.

**Linkage between measurement endpoint**Mercury linked to Fish Consumption.
and benefical use or standard

Utility of measure for judging if Basin Plan WQO for Toxicity for Mercury, USEPA criterion for

standards or uses are not attained human health consumption levels of mercury

Water Body-specific Information Data = 4 Years (1996-1999), Data measured at the site, Species or

Indicator present at site, Environmental conditions considered at site.

**Data used to assess water quality**USGS and UC Davis Data = 21 trophic level 4 fish and 9 trophic

level 3 fish. The level 4 and level 3 fish had an average mercury concentration of 0.55 ppm and 0.51ppm respectively exceeding the 0.3 ppm USEPA criteria. OEHHA is in the process of developing a

state advisory for Nevada County based on this Data.

**Spatial representation** Data was collected for Fish Tissue at three locations on the lake.

**Temporal representation** Data was collected between 1994 and 2000.

Data type Numerical data

Use of standard method USGS and UC Davis methods

Potential Source(s) of Pollutant Resource Extraction (abandoned mines)

Alternative Enforceable Program

**RWQCB Recommendation** List

**SWRCB Staff Recommendation** List: List Lake Englebright for Mercury.

#### Little Deer Creek

Water Body Little Deer Creek

Stressor/Media/Beneficial Use Mercury/Water/Fish consumption

Data quality assessment. Extent to which data quality requirements met.

Generally limited consideration to those organizations that conduct

monitoring using documented QA/QC procedures.

Linkage between measurement endpoint

and benefical use or standard

Mercury linked to Fish Consumption.

Utility of measure for judging if standards or uses are not attained

Basin Plan WQO for Toxicity for Mercury, USEPA criterion for

human health consumption levels of mercury

Water Body-specific Information Data = 1 Year (1999), Data measured at the site, Species or

Indicator present at site, Environmental conditions considered at site.

**Data used to assess water quality**USGS and UC Davis Data = 9 trophic level 3 fish. They had an

average mercury concentration of  $0.32~\rm ppm$ , exceeding the  $0.3~\rm ppm$  USEPA criterion. OEHHA is in the process of developing a state

advisory for Nevada County based on this data.

**Spatial representation** Samples collected in Little Deer Creek at Pioneer park.

**Temporal representation** Samples were collected on October 6th, 1999.

Data type Numerical data

Use of standard method USGS methods

Potential Source(s) of Pollutant Resource Extraction (abandoned mines)

**Alternative Enforceable Program** 

**RWQCB Recommendation** List

**SWRCB Staff Recommendation** List: List all of Little Deer Creek for Mercury.

#### Lower Mokelume River

Water Rody	Lower Mokelume River

Stressor/Media/Beneficial Use Aluminum/Water/Aquatic Life

**Data quality assessment.** Extent to

Generally limited consideration to those organizations that conduct

which data quality requirements met. monitoring using documented QA/QC procedures.

Linkage between measurement endpoint Aluminum linked to WQO for Toxicity and chemical constituents. and benefical use or standard

Utility of measure for judging if WQO, USEPA NWRAQ and MCL criteria for aluminum. standards or uses are not attained

Water Body-specific Information Data = 4 Years (1988-1992), Data measured at the site, Species or

Indicator present at site, Environmental conditions considered at site.

Data used to assess water quality

Data = 257 samples collected between 1988 and 1992. 35 samples exceeded the NRWAQ Maximum Criterion, and 13 exceeded the

MCL criterion. These data show that using the NRWAQ and the

MCL criterion, the WQO is exceeded.

**Spatial representation** The samples were collected at three locations along the river.

**Temporal representation** The samples were collected over 4 years (88'-92').

Data type Numerical data

**Use of standard method** EBMUD methods for sampling

Potential Source(s) of Pollutant Resource Extraction (abandoned mines)

Alternative Enforceable Program

**RWQCB Recommendation** List

**SWRCB Staff Recommendation** List: List the lower Mokelumne River from the Camanche Dam to

the Delta for Aluminum.

## Mormon Slough

Water Body	Mormon Slough
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Stressor/Media/Beneficial Use Low Dissolved Oxygen/Water/Aquatic Life

**Data quality assessment. Extent to Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.** 

Linkage between measurement endpoint Low Dissolved Oxygen linked to Aquatic Life. and benefical use or standard

Utility of measure for judging if Basin Plan WQO for Dissolved Oxygen standards or uses are not attained

Water Body-specific Information

Data = 2 Years (1999- 2000), Data measured at the site, Species or Indicator present at site, Environmental Conditions considered at

site

Data used to assess water quality

Data = 30 samples with 27 of those samples falling below the

WQO of 5 mg/L.

Spatial representation The data were collected from Mormon Slough

**Temporal representation** The data were collected over 2 years, from 11/99-2/00.

Data type Numerical data

Use of standard method DeltaKeeper methods

Potential Source(s) of Pollutant Urban Runoff/Storm Sewers

Alternative Enforceable Program

**RWQCB Recommendation** List

**SWRCB Staff Recommendation** List: List the Mormon Slough between, Commerce Street and the

Stockton Deep Water Channel for Low Dissolved Oxygen. The data clearly shows that the WQO for Dissolved Oxygen are being

exceeded.

## Mormon Slough

and benefical use or standard

Water Body Mormon Slough

Stressor/Media/Beneficial Use Pathogens/Water/REC-1

**Data quality assessment. Extent to Solution**Generally limited consideration to those organizations that conduct **which data quality requirements met.**monitoring using documented QA/QC procedures.

**Linkage between measurement endpoint** Pathogens linked to REC-1 beneficial uses.

Utility of measure for judging if Basin Plan WQO standards or uses are not attained

Water Body-specific Information

Data = 10 Months (2000-2001), Data measured at the site, Species or Indicator present at site, Environmental conditions considered at

site.

**Data used to assess water quality**Data =31 samples with a calculated Geometric mean. The Geometric

mean = 1,272 MPN per 100ml, exceeding the 126 per 100 ml

USEPA criterion. The WQO has been exceeded.

Spatial representation The data were collected from Mormon Slough at one sampling

location.

**Temporal representation**The data were sampled from one location over a ten month period of

time (2000-2001)

Data type Numerical data

Use of standard method DeltaKeeper methods

Potential Source(s) of Pollutant Urban Runoff/Recreation

**Alternative Enforceable Program** 

**RWQCB Recommendation** List

SWRCB Staff Recommendation List: List the Mormon Slough from the confluence with the Deep

Water channel to the confluence with the Stockton Diverting Channel for pathogens. The bacterial data show the WQO is

exceeded.

# Mosher Slough

<b>U</b>	
Water Body	Mosher Slough
Stressor/Media/Beneficial Use	Low Dissolved Oxygen/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and benefical use or standard	Low Dissolved Oxygen linked to Aquatic Life.
Utility of measure for judging if standards or uses are not attained	Basin Plan WQO for Dissolved Oxygen
Water Body-specific Information	Data = 2 Years (1996 and 99- 2000), Data measured at the site, Species or Indicator present at site, Environmental Conditions considered at site.
Data used to assess water quality	Data = 43 samples of Dissolved Oxygen values, with 19 (44%) of those samples falling below the WQO of 5 mg/L .
Spatial representation	The Dissolved Oxygen data were collected in Mosher Slough.
Temporal representation	The data were collected 11/99 and 2/00, and also in 11/96 and 10/96.
Data type	Numerical data
Use of standard method	DeltaKeeper methods
Potential Source(s) of Pollutant	Urban Runoff/Storm Drains.
Alternative Enforceable Program	
RWQCB Recommendation	List
SWRCB Staff Recommendation	List: List for Dissolved Oxygen. List Mosher Slough from the I-5 bridge to the confluence with Bear Creek. The WQO is being exceeded.

## Mosher Slough

Water Body Mosher Slough

Stressor/Media/Beneficial Use Pathogens/Water/REC-1

**Data quality assessment. Extent to**Generally limited consideration to those organizations that conduct which data quality requirements met monitoring using documented OA/OC procedures

which data quality requirements met. monitoring using documented QA/QC procedures.

Linkage between measurement endpoint Pathogens linked to REC-1 Beneficial uses. and benefical use or standard

Utility of measure for judging if Basin Plan WQO standards or uses are not attained

Water Body-specific Information Data = 1Year (2001), Data measured at the site, Species or Indicator

present at site, Environmental conditions considered at site.

Data used to assess water quality Data = 31 samples, 29 of which exceeded the CDHS 30 day

criterion for E. coli.

**Spatial representation** The date were collected in Mosher Slough.

**Temporal representation** The data were collected during 2001, from May-February.

Data type Numerical data

Use of standard method DeltaKeeper methods

Potential Source(s) of Pollutant Urban Runoff/Storm Sewers

Alternative Enforceable Program

**RWQCB Recommendation** List

SWRCB Staff Recommendation List: List for Pathogens. The bacterial data show the WQO is

exceeded (REC-1). List the Mosher Slough from Mosher Creek to

the confluence with the Bear Creek.

## Newman Wasteway

Water Body Newman Wasteway

Stressor/Media/Beneficial Use Chlorpyrifos/Water/Aquatic Life

Data quality assessment. Extent to Generally limited consideration to those organizations that conduct

which data quality requirements met. monitoring using documented QA/QC procedures.

Linkage between measurement endpoint Chlorpyrifos linked to Aquatic life. and benefical use or standard

Utility of measure for judging if CDFG criteria Chlorpyrifos levels, WQO standards or uses are not attained

Water Body-specific Information

Data = 3 years (1991-93), Data measured at the site, Species or

Indicator present at site, Environmental conditions considered at site.

Data used to assess water quality

Data =10 samples, out of those, 2 samples exceeded the chronic criteria and 2 samples exceeded the acute criteria, 4 total of 10

(40%). Data ranged to up to 15 times the criteria levels.

Spatial representation The data were collected from the Newman Wasteway

**Temporal representation** Data were collected for 3 years from 1991-1993. Sampling between

January and April.

Data type Numerical data

Use of standard method CDFG methods

Potential Source(s) of Pollutant Agriculture

Alternative Enforceable Program

**RWQCB Recommendation** List

**SWRCB Staff Recommendation** List: List for Chlorpyrifos. List the entire Wasteway. The data have

shown exceedance of the WQO, using CDFG criteria.

## Newman Wasteway

Water Body Newman Wasteway

Stressor/Media/Beneficial Use Diazinon/Water/Aquatic Life

Data quality assessment. Extent to Generally limited consideration to those organizations that conduct

which data quality requirements met. monitoring using documented QA/QC procedures.

**Linkage between measurement endpoint**Diazinon linked to Aquatic Life.

and benefical use or standard

Utility of measure for judging if WQO for Toxicity and Pesticides ,CDFG criteria for Diazinon standards or uses are not attained

Water Body-specific Information Data = 3 years (1991-93), Data measured at the site, Species or

Indicator present at site, Environmental conditions considered at site.

Data used to assess water quality

Data =10 samples, out of those,4 samples exceeded the chronic criteria and 3 samples exceeded the acute criteria, 7 total of 10

(70%). Data ranged to up to 700 times the criteria levels.

**Spatial representation** The data were collected from the Newman Wasteway

**Temporal representation** Data were collected for 3 years (1991-93)

Data type Numerical data

Use of standard method CDFG methods

Potential Source(s) of Pollutant Agriculture (Used on nut and fruit orchards in winter months)

Alternative Enforceable Program

**RWQCB Recommendation** List

**SWRCB Staff Recommendation** List: List for Diazinon. List the entire Wasteway. The data have

shown exceedance of the WQO, using CDFG criteria.

## Oak Run Creek

Water Body Oak Run Creek

Stressor/Media/Beneficial Use Fecal Coliform/Water/REC1

**Data quality assessment.** Extent to

Which data quality requirements met.

Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.

Linkage between measurement endpoint Fecal coliform linked to Recreation -1 WQO for Bacteria.

and benefical use or standard

Utility of measure for judging if WQO for bacteria, Rec-1 standards or uses are not attained

Water Body-specific Information

Data = 5 months (June - October 1999), Data measured at the site,

Species or Indicator present at site, Environmental Conditions

considered at site.

Data used to assess water quality Data was collected and the average levels were 400 MPN/100ml,

exceeding the WQO Geometric Mean levels of 200 MPN/100ml for at least 5 months. The WQO has been exceeded. Many of the samples were above the 30 day basin plan criteria of 400

MPN/100ml.

Spatial representation Data were collected from the middle reach of Oak Creek.

**Temporal representation** Data were collected between June and October of 1999.

Data type Numerical data

Use of standard method Hannaford and North State Institute for Sustainable Communities,

sampling methods.

Potential Source(s) of Pollutant Human and/or Livestock Sources

**Alternative Enforceable Program** 

**RWQCB Recommendation** List

**SWRCB Staff Recommendation** List: List for Fecal Coliform Bacteria. List the middle reach, 4.5

miles of Oak run creek. From 16.5 miles before the confluence to 12

miles from the confluence

#### Orestimba Creek

Water Body	Orestimba Creek

Stressor/Media/Beneficial Use Azinphos-methyl/Water/Aquatic Life

**Data quality assessment. Extent to**Generally limited consideration to those organizations that conduct which data quality requirements met.
monitoring using documented QA/QC procedures.

Linkage between measurement endpoint Azinphos-methyl linked to Aquatic Life. and benefical use or standard

Utility of measure for judging if WQO, USEPA criteria for azinphos-methyl. standards or uses are not attained

Water Body-specific Information

Data = 2 years (1992-1993), Data measured at the site, Species or Indicator present at site, Environmental conditions considered at site.

**Data used to assess water quality**Data = 46 samples, 9 of which are above the USEPA criteria levels.

**Spatial representation** Data were collected from the Creek at River Road.

**Temporal representation** Data were collected from 1992-1993 from Feb. 1992- November

1993.

Data type Numerical data

Use of standard method USEPA methods

Potential Source(s) of Pollutant Agriculture (Used to control insects on almonds, walnuts and other

crops).

**Alternative Enforceable Program** 

**RWQCB Recommendation** List

**SWRCB Staff Recommendation** List: List for Azinphos-methyl. List the lower ten miles from the

foothills to the San Joaquin River. The WQO has been exceeded.

Water Body

## Orestimba Creek

Stressor/Media/Beneficial Use	DDE/Water/Fish Consumption and Drinking Water
Data quality assessment. Extent to which data quality requirements met.	Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.
Linkage between measurement endpoint and benefical use or standard	DDE linked to Fish Consumption and Drinking Water for the protection of Human health.
Utility of measure for judging if standards or uses are not attained	USEPA - CTR for DDE, WQO.
Water Body-specific Information	Data = 1 year (1993), Data measured at the site, Species or Indicator present at site, Environmental conditions considered at site.
Data used to assess water quality	Data =40 samples, 15 of which exceed the USEPA criterion for DDE, exceeding the WQO.

Orestimba Creek

**Spatial representation** Data were collected by USGS from the Creek at River Road.

**Temporal representation**Data were collected in 1993, primarily in Jan. and March, with

additional sampling May- June, and minimal sampling during the rest of the year.

rest of the year.

**Data type** Numerical data

Use of standard method USGS methods

**Potential Source(s) of Pollutant** Historical Agriculture (prior to being banned in 1972)

**Alternative Enforceable Program** 

**RWQCB Recommendation** List

SWRCB Staff Recommendation List: List the lower ten miles from the foothills to the San Joaquin

River for DDE. The WQO has been exceeded.

## Lower Putah Creek

Water Body Lower Putah Creek

Stressor/Media/Beneficial Use Mercury/Water/Fish Consumption

**Data quality assessment.** Extent to

Which data quality requirements met.

Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.

Linkage between measurement endpoint

and benefical use or standard

Mercury linked to Fish Consumption.

Utility of measure for judging if Basin Plan WQO, USEPA criterion for human health consumption

standards or uses are not attained levels of mercury

Water Body-specific Information Data = 2 Years (1997-1998), Data measured at the site, Species or

Indicator present at site, Environmental conditions considered at site.

Data used to assess water quality

USDHHS-ATSDR and UC Davis Data = 67 trophic level 4 fish and

204 trophic level 3 fish. The level 4 fish had 39 fish in exceedance of the criteria levels above 0.3 ppm. The trophic level 3 fish had 6

fish exceeding the 0.3 ppm USEPA criteria.

Spatial representation Data was collected from Lower Putah creek between Lake Berryesa

and Putah Creek.

**Temporal representation** Data was collected in 1997 and 1998.

Data type Numerical data

Use of standard method USDHHS-ATSDR and UCD methods

Potential Source(s) of Pollutant Mining, unknown source.

**Alternative Enforceable Program** 

**RWQCB Recommendation** List

SWRCB Staff Recommendation List: List the Lower Putah Creek from Lake Solano to Putah Creek

for Mercury. The data show exceedance of the WQO using USEPA

criteria for mercury.

#### Lower Putah Creek

Water Body Lower Putah Creek

Stressor/Media/Beneficial Use Unknown Toxicity/Water/Aquatic Life

**Data quality assessment.** Extent to

Which data quality requirements met.

Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.

Linkage between measurement endpoint Toxicity linked to Aquatic Life.

and benefical use or standard

Utility of measure for judging if
Basin plan WQO for toxicity and comparing toxicity data results to
standards or uses are not attained
Lab control results.

Water Body-specific Information

Data = 2 Years (1998-1999), Data measured at the site,
Environmental conditions considered at site.

Data used to assess water quality

Toxicity Data was collected monthly and during rain events as well

(at least 24 samples). 16 of the samples resulted in impaired growth, impaired reproduction and mortality. Further TIE test were run and

the tests failed to pinpoint the cause while ammonia and pathogenicity were illuminated as causes.

pathogementy were multimated as eauses

Spatial representation Routine monthly samples and samples during rain events were collected. Water quality analysis, toxicity tests and TIEs were

collected. Water quality analysis, toxicity tests and TIEs were conducted on water samples collected in lower Putah Creek.

**Temporal representation** The water samples were collected during 1998 and 1999, routine

monthly sampling and sampling rain events.

**Data type** Numerical data

**Use of standard method**Laboratory Methods conducting TIEs.

Potential Source(s) of Pollutant Unknown

**Alternative Enforceable Program** 

**RWQCB Recommendation** List

SWRCB Staff Recommendation Watch List: Unknown toxicity. Available toxicity data suggest that

Lower Putah Creek is impaired by toxins from unknown sources, from downstream of lake Berryesa to the Putah Creek sinks.

## Upper Putah Creek

Water Body Upper Putah Creek

Stressor/Media/Beneficial Use Unknown Toxicity/Water/Aquatic Life

Data quality assessment. Extent to which data quality requirements met.

Generally limited consideration to those organizations that conduct

monitoring using documented QA/QC procedures.

Linkage between measurement endpoint

and benefical use or standard

Toxicity linked to Aquatic Life.

Utility of measure for judging if standards or uses are not attained

Basin plan WQO for toxicity and comparing toxicity data results to

Lab control results.

Water Body-specific Information Data = 2 Years (1998-1999), Data measured at the site,

Environmental conditions considered at site.

Data used to assess water quality

On four of the sampling dates the water caused reproductive

impairments to Ceriodaphnia They were analyzed using TIE. The results showed an unknown toxicant that suggests that a non-polar, organic chemical caused the impairments. A July 1999 sample showed impairment to growth to Selenastrum, toxicity unknown. Overall approximately 20% of the samples resulted in unknown

toxicity.

Spatial representation Data were collected just upstream from Lake Berryesa on Upper

Putah Creek.

**Temporal representation** Data were collected from the Upper Putah Creek between 1998-

1999 and were collected once a month.

Data type Numerical data

**Use of standard method**Laboratory Methods conducting TIEs.

Potential Source(s) of Pollutant Unknown

**Alternative Enforceable Program** 

**RWQCB Recommendation** List

**SWRCB Staff Recommendation** Watch List: List for unknown toxicity. Available toxicity data

suggest that Upper Putah Creek is impaired by toxins from unknown

sources, for the lower 27 miles.

#### Rollins Reservoir

Rollins Reservoir Water Body

Stressor/Media/Beneficial Use Mercury/Water/Fish Consumption

Generally limited consideration to those organizations that conduct Data quality assessment. Extent to

monitoring using documented QA/QC procedures. which data quality requirements met.

Linkage between measurement endpoint

Mercury linked to Fish Consumption. and benefical use or standard

Basin Plan WQO, USEPA criterion for human health consumption Utility of measure for judging if standards or uses are not attained levels of mercury

Water Body-specific Information Data = 15 Years (1984-1999), Data measured at the site, Species or

Indicator present at site, Environmental conditions considered at site.

USGS and TSMP Data = 50 trophic level 4 fish. The level 4 fish Data used to assess water quality had an average mercury concentration of 0.32 ppm exceeding the 0.3 ppm USEPA criteria used to determine attainment of the WQO. The WQO has been exceeded. OEHHA is in the process of

developing a state advisory for Nevada County based on this Data.

**Spatial representation** 50 Fish were collected from Rollins Reservoir from the midsection,

Bear River Arm and the Greenhorn Creek Arm.

50 fish were collected from Rollins reservoir between 1984 and **Temporal representation** 

1999, over 15 years.

Numerical data Data type

USGS and TSMP sampling methods Use of standard method

Resource Extraction Potential Source(s) of Pollutant

Alternative Enforceable Program

List **RWQCB Recommendation** 

**SWRCB Staff Recommendation** List: List all of Rollins Reservoir for Mercury. The data show

exceedance of the WQO using USEPA criteria for mercury.

## Lower San Joaquin River

Lower San Joaquin River Water Body

Stressor/Media/Beneficial Use Mercury/Water/Fish Consumption

Generally limited consideration to those organizations that conduct Data quality assessment. Extent to

monitoring using documented QA/QC procedures. which data quality requirements met.

Linkage between measurement endpoint

and benefical use or standard

Mercury linked to fish consumption.

Basin Plan WQO, USEPA criterion for human health consumption Utility of measure for judging if

standards or uses are not attained levels of mercury

Water Body-specific Information Data = 20 Years (1979-1999), Data measured at the site, Species or

Indicator present at site, Environmental conditions considered at site.

TSMP and SFEI Data = 264 trophic level 4 fish. The level 4 fish Data used to assess water quality

had an average mercury concentration of 0.45 ppm exceeding the 0.3 ppm USEPA criteria used to determine attainment of the WQO.

The WQO has been exceeded.

**Spatial representation** Data were collected in the San Joaquin River.

**Temporal representation** Fish were collected in the San Joaquin River between 1979 and

1999, over a 20 year period.

Numerical data Data type

TSMP and SFEI methods Use of standard method

Potential Source(s) of Pollutant Resource Extraction (abandoned mines)

Alternative Enforceable Program

**RWQCB Recommendation** List

List: List Lower San Joaquin River for Mercury. The data show **SWRCB Staff Recommendation** 

exceedance of the WQO using USEPA criteria for mercury.

#### Scotts Flat Reservoir

Scotts Flat Reservoir Water Body

Stressor/Media/Beneficial Use Mercury/Water/Fish Consumption

Generally limited consideration to those organizations that conduct

Data quality assessment. Extent to which data quality requirements met. monitoring using documented QA/QC procedures.

Linkage between measurement endpoint

Mercury linked to fish consumption. and benefical use or standard

Basin Plan WQO, USEPA criterion for human health consumption Utility of measure for judging if

standards or uses are not attained levels of mercury

Water Body-specific Information Data = 2 Days (9/1999), Data measured at the site, Species or

Indicator present at site, Environmental conditions considered at site.

USGS Data = 7 trophic level 4 fish. The level 4 fish had an average Data used to assess water quality

mercury concentration of 0.38 ppm exceeding the 0.3 ppm USEPA criteria used to determine attainment of the WQO. The WQO has

been exceeded.

**Spatial representation** Data were collected from Scotts reservoir.

**Temporal representation** 7 fish were collected on September 7 and 8th, 1999.

Numerical data Data type

Use of standard method USGS sampling methods.

Potential Source(s) of Pollutant Resource Extraction (abandoned mines)

Alternative Enforceable Program

**RWQCB Recommendation** List

**SWRCB Staff Recommendation** List: List all of Scotts Flat Reservoir for Mercury. The data show

exceedance of the WQO using USEPA criteria for mercury.

#### Smith Canal

Water Body Smith Canal

Stressor/Media/Beneficial Use Low Dissolved Oxygen/Water/Aquatic Life

Data quality assessment. Extent to which data quality requirements met.

Generally limited consideration to those organizations that conduct

monitoring using documented QA/QC procedures.

Linkage between measurement endpoint and benefical use or standard

Low Dissolved Oxygen linked to Aquatic Life.

Utility of measure for judging if standards or uses are not attained

Basin Plan WQO for Dissolved Oxygen

Water Body-specific Information Data = 5 Years (1994 - 98), Data measured at the site, Species or

Indicator present at site, Environmental Conditions considered at

site.

Data used to assess water quality RB/Delta Keeper Data = 41 samples of Dissolved Oxygen values,

with 31 (75%) of those samples falling below the WQO of 5 mg/L . Other data was considered from resident observation of fish kills in 1994 to DeltaKeeper Data collected over the years. The WQO for

Dissolved Oxygen has not been attained.

Spatial representation Data were collected from Smith canal by the RB and others

**Temporal representation** The data were collected from Smith canal over a period of 5 years,

during dry seasons and rain seasons, yearly.

Data type Numerical data

Use of standard method NCRWQCB, DeltaKeeper, City of Stockton methods.

Potential Source(s) of Pollutant Urban Runoff/Storm Sewers

**Alternative Enforceable Program** 

**RWQCB Recommendation** List

SWRCB Staff Recommendation List: List Smith Canal from Yosemite lake to the confluence with

the San Joaquin River for Dissolved Oxygen. The data have shown

that the WQO for Dissolved Oxygen is not being attained.

#### Smith Canal

Water Body Smith Canal

Stressor/Media/Beneficial Use Organophosphorus Pesticides/Water/Aquatic Life

**Data quality assessment. Extent to Solution**Generally limited consideration to those organizations that conduct monitoring using documented QA/QC procedures.

Linkage between measurement endpoint Pesticides linked to WQO for pesticides. and benefical use or standard

Utility of measure for judging if WQO, USEPA criteria for OP pesticides standards or uses are not attained

Water Body-specific Information

Data = 5 Years (1994 - 98), Data measured at the site, Species or Indicator present at site, Environmental Conditions considered at

site.

**Data used to assess water quality**Data = OP pesticides were tested from 8 water samples between

1994-98. TIE , toxicity tests and TUs of the OP pesticides were run and calculated. 4/8 samples showed survival impairment on the first day and 8/8 samples showed 100% mortality to Ceriodaphnia within 7 days. Data indicate that the OP pesticide caused the toxicity, Diazinon and Chlorpyrifos were ruled out. The OP concentrations are all above the chronic and acute CDFG criteria.

Using the CDFG criteria the WQO has been exceeded.

**Spatial representation** Data were collected from one location in the Smith Canal.

**Temporal representation** Data were collected between 1994 and 1998

**Data type** Numerical data

**Use of standard method** CDFG methods

Potential Source(s) of Pollutant Urban Runoff

Alternative Enforceable Program

**RWQCB Recommendation** List

SWRCB Staff Recommendation List: List the Smith Canal from the Yosemite Lake to the confluence

with the San Joaquin River for OP pesticides. The data show

exceedance of the WQO.

#### Smith Canal

Water Body Smith Canal

Stressor/Media/Beneficial Use Pathogens/Water/REC-1

Data quality assessment. Extent to

Generally limited consideration to those organizations that conduct
which data quality requirements met

monitoring using documented OA/OC procedures

which data quality requirements met. monitoring using documented QA/QC procedures.

Linkage between measurement endpoint Pathogens linked to narrative WQO for toxicity. and benefical use or standard

Utility of measure for judging if
Standards or uses are not attained

Basin Plan for WQO for toxicity for pathogens.

Water Body-specific Information Data = 1Year (2001), Data measured at the site, Species or Indicator

present at site, Environmental conditions considered at site.

**Data used to assess water quality**Data = A Geometric Mean has been calculated for samples at three

separate locations along the canal. The locations all exceeded the USEPA criteria for E. coli. 2 of the locations exceeded the criteria up to 50 times the criteria level, and the other location has exceeded the USEPA single sample criterion. Using the USEPA criteria the

WQO is exceeded.

Spatial representation The data were collected at three separate locations. Yosemite Lake

canal, one quarter mile downstream in the canal, and near the mouth

of the canal.

**Temporal representation** The data were collected during one year (2001).

Data type Numerical data

Use of standard method DeltaKeeper methods

Potential Source(s) of Pollutant Urban Runoff/Recreation

Alternative Enforceable Program

**RWQCB Recommendation** List

SWRCB Staff Recommendation List: List Smith Canal from Yosemite Lake to the confluence with

the San Joaquin River for Pathogens. The data show an exceedance

of the WQO.

## South Cow Creek

South Cow Creek Water Body

Stressor/Media/Beneficial Use Fecal Coliform/Water/REC1

Generally limited consideration to those organizations that conduct Data quality assessment. Extent to which data quality requirements met. monitoring using documented QA/QC procedures.

Linkage between measurement endpoint Fecal coliform linked to REC1 BU and WQO for Bacteria. and benefical use or standard

WQO for bacteria, Rec-1 Utility of measure for judging if standards or uses are not attained

Water Body-specific Information Data = 5 months (June - October 1999), Data measured at the site,

Species or Indicator present at site, Environmental Conditions

considered at site.

Data was collected and the average levels were approx. 800 Data used to assess water quality MPN/100ml, exceeding the WQO Geometric Mean levels of 200

MPN/100ml, at this level for at least 5 months in 1999. The WQO has been exceeded. Many of the samples were above the 30 day

basin plan criteria of 400 MPN/100ml.

**Spatial representation** Waters were sampled from the middle reach of the creek.

The samples were taken over 5 months, between June and October Temporal representation

of 1999.

Data type Numerical data

Use of standard method Hannaford and North State Institute for Sustainable Communities,

sampling methods.

Human and/or Livestock Sources Potential Source(s) of Pollutant

Alternative Enforceable Program

List **RWQCB Recommendation** 

**SWRCB Staff Recommendation** List: List South Cow Creek 14 miles from the confluence to 7 miles

> before the confluence for Fecal Coliform. The data show an average that is clearly in exceedance of the WQO for bacteria-REC 1.

#### Lower Stanislaus River

Water Body Lower Stanislaus River

Stressor/Media/Beneficial Use Mercury/Water/Fish Consumption

Data quality assessment. Extent to Generally limited consideration to those organizations that conduct

which data quality requirements met. monitoring using documented QA/QC procedures.

Linkage between measurement endpoint

and benefical use or standard

Mercury linked to Fish Consumption.

Utility of measure for judging if Basin Plan WQO, USEPA criterion for human health consumption

standards or uses are not attained levels of mercury

Water Body-specific Information Data = 20 Years (1978-1998), Data measured at the site, Species or

Indicator present at site, Environmental conditions considered at site.

Data used to assess water quality

TSMP and SFEI Data = 45 trophic level 4 fish. The level 4 fish had

an average mercury concentration of 0.53 ppm exceeding the 0.3 ppm USEPA criteria used to determine attainment of the WQO.

The WQO has been exceeded.

Spatial representation The data were collected from the Lower Stanislaus River.

**Temporal representation** The data were collected over 20 years from 1978-1998.

Data type Numerical data

**Use of standard method** TSMP and SFEI methods

Potential Source(s) of Pollutant Resource Extraction (abandoned mines)

**Alternative Enforceable Program** 

**RWQCB Recommendation** List

SWRCB Staff Recommendation List: List for Mercury. The data show an exceedance of the USEPA

criteria, which shows an exceedance of the WQO.

## Stockton Deep Water Channel

Water Body Stockton Deep Water Channel

Stressor/Media/Beneficial Use Pathogens/Water/REC-1

Data quality assessment. Extent to which data quality requirements met.

Generally limited consideration to those organizations that conduct

monitoring using documented QA/QC procedures.

Linkage between measurement endpoint

and benefical use or standard

Pathogens linked REC-1 Beneficial uses.

Utility of measure for judging if standards or uses are not attained

Basin Plan for WQO for bacteria (REC-1).

Water Body-specific Information Data = 6 months (2000), Data measured at the site, Species or

Indicator present at site, Environmental conditions considered at site.

Data used to assess water quality

Data = A Geometric Mean has been calculated for 28 samples at 14

each at two separate locations along the canal. Both the locations have exceeded the USEPA criteria for E.coli. Using the USEPA

criteria the WQO is exceeded.

**Spatial representation** The data were collected from two separate sampling, locations. One

at McLeod Lake and the other one mile upstream at Morelli Park.

**Temporal representation**The data were collected over six months in 2000, with 14 samples at

two different locations, 28 samples total.

Data type Numerical data

Use of standard method DeltaKeeper methods

Potential Source(s) of Pollutant Urban Runoff/Recreation

**Alternative Enforceable Program** 

**RWQCB Recommendation** List

**SWRCB Staff Recommendation** List: List all of the Stockton Deep Water Channel for Pathogens.

The WQO has been exceeded.

## **Sutter Bypass**

Water Body Sutter Bypass

Stressor/Media/Beneficial Use Diazinon/Water/Aquatic Life

Data quality assessment. Extent to

Generally limited consideration to those organizations that conduct

which data and life requirements met

monitoring using documented OA/OC precedures

which data quality requirements met. monitoring using documented QA/QC procedures.

**Linkage between measurement endpoint**Diazinon linked to Aquatic Life.

and benefical use or standard

Utility of measure for judging if WQO, CDFG criteria for Diazinon. standards or uses are not attained

Water Body-specific Information

Data = 4 years (1996-2000), Data measured at the site, Species or Indicator present at site, Environmental conditions considered at site.

Data used to assess water quality

Data = 78 samples, out of those, 18 samples exceeded the chronic

criteria and 6 samples exceeded the acute criteria, 24 total

exceedances of 78 samples. The criteria used are the CDFG criteria used to determine if the WQO has been exceeded.

used to determine it the woo has been exceeded.

**Spatial representation** The data were collected from the Sutter Bypass.

**Temporal representation** The data were sampled 78 times between December and March, the

winter orchard dormant season.

Data type Numerical data

**Use of standard method** CDFG methods

Potential Source(s) of Pollutant Agriculture

Alternative Enforceable Program

**RWQCB Recommendation** List

SWRCB Staff Recommendation List: List the entire length of Sutter Bypass for Diazinon. The data

show an exceedance of the WQO.

## Walker Slough

Water Body Walker Slough

Stressor/Media/Beneficial Use Pathogens/Water/REC-1

Data quality assessment. Extent to Generally limited consideration to those organizations that conduct

which data quality requirements met. monitoring using documented QA/QC procedures.

Linkage between measurement endpoint Pathogens linked REC-1 Beneficial uses. and benefical use or standard

Utility of measure for judging if Basin Plan for WQO for bacteria (REC-1). standards or uses are not attained

Water Body-specific Information Data = 6 months (2000-2001), Data measured at the site, Species or

Indicator present at site, Environmental conditions considered at site.

Data used to assess water quality

Data = A Geometric Mean has been calculated for 28 samples at 14 each at two separate locations along the canal. Both the locations

have greatly exceeded the USEPA criteria for E. coli. Some exceeded by up to 14 times the criteria level. Using the USEPA

criteria the WQO is exceeded.

**Spatial representation** The data were collected from two locations, one upstream and one

downstream.

**Temporal representation** The data were collected during six months over 2000-2001, and 14

samples were taken at two separate locations, for a total of 28

samples.

Data type Numerical data

Use of standard method DeltaKeeper methods

Potential Source(s) of Pollutant Urban Runoff/Recreation

**Alternative Enforceable Program** 

**RWQCB Recommendation** List

SWRCB Staff Recommendation List: List all of Walker Slough for Pathogens. The WQO has been

exceeded, using the USEPA criterion.

#### Wolf Creek

Water Rody	Wolf Creek

Stressor/Media/Beneficial Use Fecal Coliform/Water/REC1

Data quality assessment. Extent to which data quality requirements met.

Generally limited consideration to those organizations that conduct

monitoring using documented QA/QC procedures.

Linkage between measurement endpoint and benefical use or standard

Fecal coliform linked to Recreation -1 WQO for Bacteria.

Utility of measure for judging if standards or uses are not attained

WQO for bacteria, Rec-1

Water Body-specific Information Data = 2 years (2000-2001), Data measured at the site, Species or

Indicator present at site, Environmental Conditions considered at

site.

Data used to assess water quality

Data was collected upstream and downstream of the GVWTP and

the calculated Geometric Mean was 1491 MPN/100ml for the Total coliform, exceeding the WQO Geometric Mean levels of 200 MPN/100ml, Downstream of the GVWTP the geometric Mean was 1000MPN/100ml for the total coliform, exceeding the WQO Geometric Mean levels of 200 MPN/100ml. The WQO has been exceeded. Both the upstream and downstream calculated Geometric Means for Fecal Coliform were in exceedance as well. Some of

them reached 2300MPN/100ml, in February 2000.

**Spatial representation** The data were collected upstream and downstream of the GVWTP.

**Temporal representation** The data were collected over two years, 2000-2001.

Data type Numerical data

Use of standard method Waste Discharge Reports GVWTP, and Regional Board methods.

Potential Source(s) of Pollutant Urban Runoff/Recreation/Agriculture

**Alternative Enforceable Program** 

**RWQCB Recommendation** List

**SWRCB Staff Recommendation** List: List all of Wolf Creek for Fecal Coliform. The data show that

there is an exceedance of the WQO for bacteria REC1

#### American River Lower

Water Body American River Lower

Stressor/Media/Beneficial Use Group A Pesticides/Water/Aquatic Life

Data quality assessment. Extent to which data quality requirements met.

Generally limited consideration to those organizations that conduct

monitoring using documented QA/QC procedures.

Linkage between measurement endpoint and benefical use or standard

and perfected use of soundary

Group A Pesticides are linked to Aquatic Life

Utility of measure for judging if standards or uses are not attained

Basin Plan, WQO for pesticides and toxicity for Group A pesticides.

NAS/USFDA tissue criteria.

Water Body-specific Information Data = 11 years (1979-1990) and 2 years later (1997-1999), Data

measured at the site, Species or Indicator present at site,

Environmental Conditions considered at site.

Data used to assess water quality

The American River was originally placed on the 303(d) List for Group A Pesticide Concentrations based on fish tissue data reported by the TSMP. The TSMP analysis included all the group A pesticide for 15 fish tissue samples. 3 out of those 15 samples had an average concentration of 56.2 ppb.. exceeding the criteria of NAS and USFDA. When only considering Dieldrin and Chlordane concentration the weighted average changes to 55.7 ppb. Therefore Dieldrin and Chlordane account for almost all of the Group A pesticides historically found in fish in the River. Recently fish tissue collected for SRWP, 7 tissue samples were examined for Dieldrin and Chlordane. None of the samples analyzed exceeded the criteria for NAS and USFDA. The WQO is being attained. A direct comparison of the earlier TSMP study and the SRWP study can be

**Spatial representation** 

In the TSMP studies, fish were collected from the River at Highway 160 and downstream of Watt Ave. In the SRWP studies the fish were collected from the river at Discovery park and J St. The spatial coverage from the two studies overlaps sufficiently so that fish tissue concentration are comparable.

made, the recent data show the criteria are not being exceeded.

**Temporal representation** 

The data were collected for the TSMP study from 1979-1990, and

the SRWP study sampled from 1997-1999.

Data type Numerical Data

Use of standard method TSMP and SRWP methods

Potential Source(s) of Pollutant Unknown

**Alternative Enforceable Program** 

RWQCB Recommendation Delist

**SWRCB Staff Recommendation** Delist: The new data show that the NAS and USFDA criteria are not

## American River Lower

being exceeded. Therefore the WQO for Group A pesticides for toxicity and pesticides are being attained and no longer need to be listed on the 303(d) List for Group A Pesticide, WQO exceedance. Remove the entire length of the lower American River, Nimbus Dam to the Sacramento River attains WQO for Group A pesticides.

## Cache Creek

Water Body	Cache Creek
Stressor/Media/Beneficial Use	Mercury and Unknown Toxicity
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and benefical use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	Change listing from the total length of 60 miles to 81 miles. Extent of impairment to be changed from 35 miles to 81 miles.
Data used to assess water quality	Foe and Croyle (1998) indicated that the total length of Cache creek is 81 miles.
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
<b>RWQCB Recommendation</b>	Change in Total Size and Size Affected.
SWRCB Staff Recommendation	Change in Total Size and Size Affected.

#### Camanche Reservoir

and benefical use or standard

Water Body	Camanche Reservoir
Stressor/Media/Beneficial Use	Copper
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint	N/A

N/A Utility of measure for judging if standards or uses are not attained

Water Body-specific Information Camanche Reservoir was included in the 1998 303(d) list as part of the lower Mokelumne River listing for Copper. RB wants to list the

Camanche Reservoir

Camanche Reservoir separate from the Mokelumne River, as a listing for Copper.

Data used to assess water quality The original listing was in 1992, the entire lake, Camanche

Reservoir is listed for Copper as part of the Mokelumne. RB feels that it should now be listed separate from the original Mokelumne River listing because, it is more appropriate to list reservoirs separate from their downstream drainages, from a watershed management strategy perspective. Rivers and reservoirs have

different management strategies.

**Spatial representation** 

**Temporal representation** 

Data type

Use of standard method

Potential Source(s) of Pollutant Resource Extraction/Abandoned Mines.

Alternative Enforceable Program

**RWQCB Recommendation** Change in listing to include reservoir on list separate from the river.

**SWRCB Staff Recommendation** Change in listing to include reservoir on list separate from the river.

## Camanche Reservoir

**SWRCB Staff Recommendation** 

Water Body	Camanche Reservoir
Stressor/Media/Beneficial Use	Zinc
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and benefical use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	Camanche Reservoir was included in the 1998 303(d) list as part of the lower Mokelumne River listing for Zinc. RB wants to list the Camanche Reservoir separate from the Mokelumne River, as a listing for Zinc.
Data used to assess water quality	The original listing was in 1992, the entire lake, Camanche Reservoir is listed for Zinc as part of the Mokelumne. RB feels that it should now be listed separate from the original Mokelumne River listing because, it is more appropriate to list reservoirs separate from their downstream drainages, from a watershed management strategy perspective. Rivers and reservoirs have different management strategies.
Spatial representation	
Temporal representation  Data type	
Use of standard method	
Potential Source(s) of Pollutant	Resource Extraction/Abandoned Mines.
Alternative Enforceable Program	
RWQCB Recommendation	Change in listing to include reservoir on list separate from the river.

Change in listing to include reservoir on list separate from the river.

## Delta Waterways

Water Body	Delta Waterways
Stressor/Media/Beneficial Use	Dissolved Oxygen
Data quality assessment. Extent to	N/A

Linkage between measurement endpoint N/A

which data quality requirements met.

and benefical use or standard

Utility of measure for judging if N/A standards or uses are not attained

Water Body-specific Information

Change listing from the total size of 480,000 acres to 48,000 acres.

Extent of affected area to be changed from a size affected of 75

acres to 1,461 acres.

**Data used to assess water quality**The total size of the Delta is 48,000 acres, a misprint occurred in the

final 1998 303(d) list. The size should be changed to the true size. The area of the Delta affected by Low Dissolved Oxygen is an area of 1,461 acres. Therefore the total size of the Delta should be

changed for Low D.O listing.

**Spatial representation** 

**Temporal representation** 

Data type

Use of standard method

Potential Source(s) of Pollutant

**Alternative Enforceable Program** 

**RWQCB Recommendation** Change in Total Size and Size Affected.

**SWRCB Staff Recommendation** Change in Total Size and Size Affected.

## Delta Waterways

**SWRCB Staff Recommendation** 

Delta Water Ways	
Water Body	Delta Waterways
Stressor/Media/Beneficial Use	Chlorpyrifos, DDT, Diazinon, Group A pesticides, Mercury, and Unknown Toxicity.
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and benefical use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	Change listing from the total size of 480,000 acres to 48,000 acres.
Data used to assess water quality	The total size of the Delta is 48,000 acres, a misprint occurred in the final 1998 303(d) list. The size should be changed to the true size. Therefore the total size of the Delta should be changed to these sizes for all listed pollutants; Chlorpyrifos, DDT, Diazinon, Group A pesticides, Mercury, and Unknown Toxicity.
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	Change in Total Size and Size Affected.

Change in Total Size and Size Affected.

## Dunn Creek

Water Body	Dunn Creek
Stressor/Media/Beneficial Use	Mercury and Metals.
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and benefical use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	Change listing from the total length of 9 miles to 3 miles. Extent of affected area to be changed from 9 miles to 1 mile.
Data used to assess water quality	Stotton et al. (1996a) and Iovenitti et al. (1989) indicate that the total length of the creek is 3 miles.
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	Resource Extraction/Abandoned Mines.
Alternative Enforceable Program	
RWQCB Recommendation	Change in Total Size and Size Affected.
SWRCB Staff Recommendation	Change in Total Size and Size Affected.

**SWRCB Staff Recommendation** 

#### Fall River

Fall River Water Body Stressor/Media/Beneficial Use Sedimentation and Siltation Data quality assessment. Extent to N/A which data quality requirements met. N/A Linkage between measurement endpoint and benefical use or standard N/A Utility of measure for judging if standards or uses are not attained Water Body-specific Information Change listing from the total length of 25 miles to 9.5 miles. Data used to assess water quality Evidence suggests that the upper Fall River is impaired relative to lower Fall River. CRWQCB-CVR 1982, CDWR 1998, NSR and T. Holmes 1997, Tetra Tech 1998, USDA 1983. **Spatial representation Temporal representation** Data type Use of standard method Potential Source(s) of Pollutant **Alternative Enforceable Program RWQCB Recommendation** Change in size affected.

Change in size affected.

## French Ravine

Water Body	French Ravine
Stressor/Media/Beneficial Use	Bacteria
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and benefical use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	Change listing from the total length of 1 mile to 4 miles.
Data used to assess water quality	French Revine has a length of 4 miles from it's headwaters to it's confluence with Wolf Creek. Horizons Technology, Inc. 1997.
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	Change in Total Size and Size Affected.
SWRCB Staff Recommendation	Change in Total Size and Size Affected.

## Horse Creek

Water Body	Horse Creek
Stressor/Media/Beneficial Use	All metals (Cadmium, Copper, Lead, Zinc)
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and benefical use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	Change listing from the total size of extent of impairment from 2 miles to 1 mile.
Data used to assess water quality	Water Quality data indicate that metals affect Horse Creek downstream from rising star mine, which is located 1 mile downstream of the headwater. Montoya and Pan (1992) indicate that Horse creek is 2 miles. The listing should start at the mine which is 1 mile downstream. Total size of listing for metals should be 1 mile, not 2.
Spatial representation	
Temporal representation  Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	Change in size affected.
SWRCB Staff Recommendation	Change in size affected.

## Humbug Creek

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Water Body	Humbug Creek
Stressor/Media/Beneficial Use	Sedimentation and Siltation, Mercury, Copper, and Zinc.
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and benefical use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	Change listing extent of impairment from 9 miles to 3 miles.
Data used to assess water quality	Montoya and Pan (1992) indicate that Humbug creek is 9 miles. The listing should start at the Malakoff Diggins mine which is 3 miles upstream of the confluence with the Yuba River. Total size of listing for metals should be in Humbug creek downstream of Malakoff Diggins mine 3 miles, not 9.
Spatial representation	
Temporal representation  Data type	
Use of standard method	
Potential Source(s) of Pollutant	Resource Extraction/Abandoned mines.
Alternative Enforceable Program	
RWQCB Recommendation	Change in size affected.
SWRCB Staff Recommendation	Change in size affected.

### James Creek

Water Body	James Creek
Stressor/Media/Beneficial Use	Nickel and Mercury
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and benefical use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	Change listing from the total length of 6 miles to 9 miles. Extent of affected area to be changed from 6 miles to 8.5 mile.
Data used to assess water quality	Buer et al. (1979), Montoya and Pan (1992), USGS (1980, 1987a, 1987b, 1997), indicate that the total length of James Creek is 9 miles. The inflow mine drainage starts 0.5 miles downstream, hence 8.5 miles affected size.
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	Resource Extraction/Abandoned mines.
Alternative Enforceable Program	
RWQCB Recommendation	Change in Total Size and Size Affected.
SWRCB Staff Recommendation	Change in Total Size and Size Affected.

#### Lower Mokelumne River

**Alternative Enforceable Program** 

**SWRCB Staff Recommendation** 

**RWQCB Recommendation** 

Water Body	Lower Mokelumne River
Stressor/Media/Beneficial Use	Copper
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and benefical use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	Mokelumne River was included in the 1998 303(d) list as all of the lower Mokelumne River listing for Copper. RB wants to list the Mokelumne from the Camanche Dam to the Delta, as a listing for Copper.
Data used to assess water quality	The original listing was in 1992, all of lower Mokelumne River was listed for Copper as part of the Mokelumne . RB feels that it should now be listed as Lower Mokelumne River listing from Camanche Dam to Delta because, it is more appropriate to list reservoirs separate from their downstream drainages, from a watershed management strategy perspective. Rivers and reservoirs have different management strategies.
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	Resource Extraction/Abandoned mines.

Change in areal extent.

Change in areal extent.

## Lower Mokelumne River

**SWRCB Staff Recommendation** 

Water Body	Lower Mokelumne River
Stressor/Media/Beneficial Use	Zinc
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and benefical use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	Mokelumne River was included in the 1998 303(d) list as all of the lower Mokelumne River listing for Zinc. RB wants to list the Mokelumne from the Camanche Dam to the Delta, as a listing for Zinc.
Data used to assess water quality	The original listing was in 1992, all of lower Mokelumne River was listed for Zinc as part of the Mokelumne . RB feels that it should now be listed as Lower Mokelumne River listing from Camanche Dam to Delta because, it is more appropriate to list reservoirs separate from their downstream drainages, from a watershed management strategy perspective. Rivers and reservoirs have different management strategies.
Spatial representation	
Temporal representation  Data type	
Use of standard method	
Potential Source(s) of Pollutant	Resource Extraction/Abandoned mines.
Alternative Enforceable Program	
RWQCB Recommendation	Change in areal extent.

Change in areal extent.

## Marsh Creek

Water Body	Marsh Creek
Stressor/Media/Beneficial Use	Mercury
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and benefical use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	Change listing from the total length of 24 miles to 16.5 miles. Extent of affected area to be changed from all of Marsh Creek, to Marsh Creek from Dunn Creek to Marsh Creek Reservoir.
Data used to assess water quality	The affected length of Marsh Creek for this listing is only the 16.5 miles from Dunn Creek to the Marsh Creek Reservoir.
Spatial representation	
Temporal representation  Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	Change in Total Size and Size Affected.
SWRCB Staff Recommendation	Change in Total Size and Size Affected.

### Marsh Creek

Water Body	Marsh Creek
Stressor/Media/Beneficial Use	Metals
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and benefical use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	Change listing from the total length of 24 miles to 8.5 miles. Extent of affected area to be changed from all of Marsh Creek to Marsh Creek from Dunn Creek to Marsh Creek Reservoir.
Data used to assess water quality	The affected length of Marsh Creek for this listing is only the 8.5 miles from Dunn Creek to the Marsh Creek Reservoir.
Spatial representation	
Temporal representation  Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	Change in Total Size and Size Affected.
SWRCB Staff Recommendation	Change in Total Size and Size Affected.

# Mosher Slough

Water Body	Mosher Slough
Stressor/Media/Beneficial Use	Diazinon and Chlorpyrifos
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and benefical use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	Change listing from the total length of 3 miles to 5 miles.
Data used to assess water quality	Mosher Slough is 5 miles in length. Horizons Technology, Inc. 1997, DeLorme 1998.
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	Change in Total size affected.
SWRCB Staff Recommendation	Change in Total size affected.

## San Carlos Creek

**SWRCB Staff Recommendation** 

Water Body	San Carlos Creek
Stressor/Media/Beneficial Use	Mercury
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and benefical use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	Change listing from the total length of 1 mile to 9 miles. Extent of affected area to be changed from 1 mile to 4 miles.
Data used to assess water quality	San Carlos Creek has a length of 9 miles, from its headwaters at San Benito Mountain to its confluence with Silver Creek. CRWQCB-CVR 1995, USGS 1958-2000.
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	Change in Total Size and Size Affected.

Change in Total Size and Size Affected.

## Lower Stanislaus River

Water Body	Lower Stanislaus River
Stressor/Media/Beneficial Use	Diazinon, Group A Pesticides, Unknown toxicity
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and benefical use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	Change listing from the total length of 48 miles to 58 miles. Extent of affected area to be changed from 48 miles to 58 miles.
Data used to assess water quality	USGS topographic maps indicate that the total length of the River is 58 miles. (USGS 1958-2000)
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	Change in Total Size and Size Affected.
SWRCB Staff Recommendation	Change in Total Size and Size Affected.

## Lower Toulumne River

Water Body	Lower Toulumne River
Stressor/Media/Beneficial Use	Diazinon
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and benefical use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	Change listing from the total length of 32 miles to 54 miles. Extent of affected area to be changed from 32 miles to 42 miles.
Data used to assess water quality	USGS topographic maps indicate that the total length of the River is 54 miles. (USGS 1958-2000) Chemical analysis indicate the length affected by Diazinon is 42 miles.
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	Change in Total Size and Size Affected.
SWRCB Staff Recommendation	Change in Total Size and Size Affected.

#### Lower Toulumne River

Water Body	Lower Toulumne River
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Stressor/Media/Beneficial Use Group A Pesticides, Unknown Toxicity

Data quality assessment. Extent to which data quality requirements met.

N/A

Linkage between measurement endpoint

and benefical use or standard

N/A

Utility of measure for judging if standards or uses are not attained

N/A

Water Body-specific Information Change listing from the total length of 32 miles to 54 miles. Extent

of affected area to be changed from 32 miles to 54 miles.

Data used to assess water quality USGS topographic maps indicate that the total length of the River is

54 miles. (USGS 1958-2000) Chemical analysis indicate the entire

length is affected by Group A pesticides.

**Spatial representation** 

Temporal representation

Data type

Use of standard method

Potential Source(s) of Pollutant

Alternative Enforceable Program

**RWQCB Recommendation** Change in Total Size and Size Affected.

**SWRCB Staff Recommendation** Change in Total Size and Size Affected.

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